

# AV80R™ HANDHELD



**BendixKing.**  
by Honeywell



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## **AV8OR Handheld**

### **User's Guide**

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# 1. GETTING STARTED

## INTRODUCTION

Thank you for choosing the Honeywell AV8OR Handheld, a Multi-Function Display (MFD) that integrates a GPS, Navigation Database, Graphical Terrain, Traffic and XM Weather/Radio into a single, easy to use, portable aviation device. In addition to the benefits for aviation use, this device also contains a complete compliment of automotive navigation and multi-media features for use when not in your aircraft. To get the most out of your new navigation system, read this manual completely to learn the features for your unit.



Figure 1-1: AV8OR - In the Air or On the Ground



Figure 1-2: AV8OR - Multimedia

UNIT OVERVIEW



Figure 1-3: AV8OR Controls

ID-256123

## DISPLAYS AND CONTROLS

The table below describes the AV8OR displays and controls that are displayed in Figure 1-3:

Table 1-1 Displays and Controls

FIG NO	DISPLAY OR CONTROL	DESCRIPTION
1	Touch screen	4.3 inch TFT touch screen. The resolution is 480 x 272 pixels.
2	POWER key	The POWER key is used to turn the unit on and off and also can put the unit into Sleep mode and wake the unit from Sleep mode.
3	MENU key	The MENU key returns the user to the main menu from any program in the unit.
4	LED charging status indicator	Shows the status of the charging system while the unit is being charged.
5	SD slot and SD card	The SD slot holds a SD card which contains the aviation and automotive navigation software.
6	LOCK tab	The LOCK tab disables all controls and stops the touch screen from responding to taps.
7	6 VDC power connector	This connector lets the unit receive power from an AC or an automotive DC.

<b>FIG NO</b>	<b>DISPLAY OR CONTROL</b>	<b>DESCRIPTION</b>
8	Microphone	The microphone is used for Bluetooth connections to cell phones.
9	USB/Serial port	This is used for a standard USB connection to a PC to download movies, pictures, E-books and new updates to the navigational software. Also used for a RS 232 connection to external hardware with an optional cable.
10	AV-IN port	Future expansion
11	Headset jack	The headset jack accepts a standard headphone miniature stereo adapter so the user can listen to music or movies from the unit.
12	Volume control knob	The volume control controls the volume of the sound through the rear speaker or the Headset jack if a headset is plugged in.
13	External GPS antenna jack	The remote GPS antenna jack allows the user to plug in the remote GPS antenna that is supplied with the unit for better satellite reception.
14	Stylus	The stylus allows the user to precisely tap the touch screen.

FIG NO	DISPLAY OR CONTROL	DESCRIPTION
15	Removable battery cover	A replaceable battery is included with the unit. An optional battery with a longer life is also available. The serial number for the unit is located on the case under the battery.
16	Internal speaker	AV8OR has an Internal speaker for music, movies, routing instructions.
17	Reset button	The reset button reboots the AV8OR unit.

## Supplied software and Equipment

The SD card on the AV8OR Handheld comes preloaded with a navigation map for the GoFly program and the GoDrive program. Different maps for different regions are available. Please visit the **[bendixking.com/av8or](http://bendixking.com/av8or)** website to browse the available regions, purchase a replacement SD card for your current region or to purchase a SD card for a different region.

For Automotive map subscriptions and software updates, visit the **[naviextras.com](http://naviextras.com)** website.

See the Subscriptions and Updates section on page 6-18 for more information.

The AV8OR Handheld comes with the standard equipment that follows:

Table 1-2 Standard Equipment

ITEM	PART NUMBER	DESCRIPTION
1	066-01207-0099	GPS Base Display Unit, with 800 mAh Battery and battery mounting bracket
2	005-03702-0002	12-28 VDC Adaptor
3	005-03702-0003	120/220 VAC Adapter (with electrical plug)
4	005-03702-0004	PC/USB Cable
5	005-03702-0005	Carrying Bag
6	005-03702-0007	Aviation Mount
7	005-03702-0009	Automotive Windshield Mount
8	005-03702-0010	Earphone
9	005-03702-0012	CD – User manual
10	005-03702-0013	Quick Reference Guide

## Optional Equipment

The following accessories are available for the AV8OR:

Table 1-3 Optional Equipment

ITEM	PART NUMBER	DESCRIPTION
1	005-03702-0006	Remote GPS Antenna
2	005-03702-0014	1600 mAh Battery, (with mounting bracket)
3	005-03702-0008	Automotive Dashboard Mount
4	005-03702-0017	RS232 Cable

**NOTE:** The list of optional equipment may change in the future. For the latest list of options or to order a part, please visit the [bendixking.com/av8or](http://bendixking.com/av8or) website.



## Charging the internal battery

Before using this unit for the first time or when replacing the internal battery with a new battery, the internal battery in the AV8OR must be charged.

Find the power connector (7) on the right side of the unit. Refer to Figure 1-3.

Recharge the unit by either using the DC power adapter or the 120/220V AC adapter.

The LED charging indicator (4) on the unit shows a yellow light while the unit is charging.

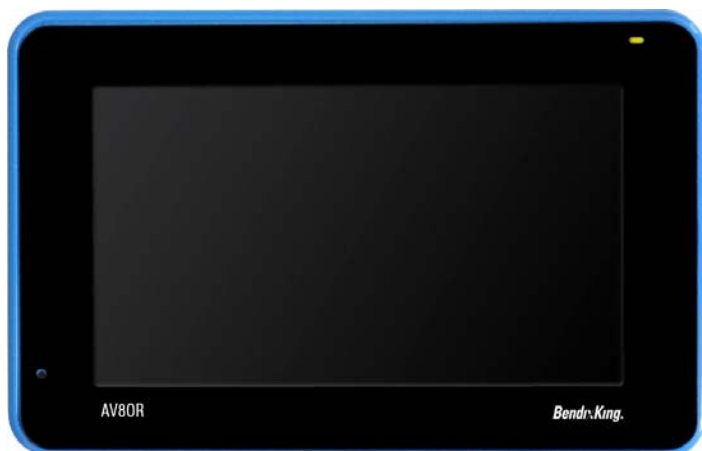


Figure 1-4: Charging with AV8OR turned off

When the unit is completely charged, the yellow light changes to a green light. If the unit is turned on while charging, the charging animation in the top right portion of the screen also displays a green battery with full bars.

The table below shows the different charge levels.

Table 1-4: Battery Charge Level

<b><u>Status</u></b>	<b><u>Charge Level</u></b>	<b><u>Number of bars on icon</u></b>	<b><u>Color</u></b>
Full	> 75%	5	Green
Good	> 50% & ≤ 75%	4	Green
Medium	> 25% & ≤	3	Yellow

<u>Status</u>	<u>Charge Level</u>	<u>Number of bars on icon</u>	<u>Color</u>
	50%		
Low	> 5% & ≤ 25%	2	Yellow
Critical	≤ 5%	1	Red

**NOTE:** *Battery recycling is encouraged. When replacing the battery, dispose the old battery in accordance with Local and National Disposal Regulations.*

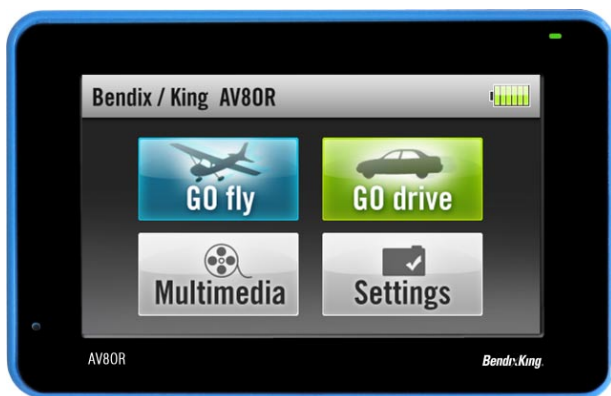


Figure 1-5: Charge is completed

This section explains how to enter and select information with the AV8OR.

## Understanding Terms

The AV8OR unit is designed to allow quick, convenient selection of navigation options and data entry. As you progress through this user's manual, you are directed to tap a specific soft key or highlight a field on the screen. In order to highlight a field, just touch the field on the screen.

**Touch or Tap:** Use your finger or the AV8OR stylus to touch the screen on the soft key and remove it quickly

**Double tap:** Use your finger or the stylus to touch the screen twice on a field. The double tap is used to open a menu selection box.

**Pan:** Touch the screen and move your finger or stylus across the screen while continuing to touch the screen. This allows you to scroll the map and change settings.

**Highlight:** Touch on the screen to select the desired individual fields. Moving the highlight to a desired location allows the user to make a selection, begin data entry, or scroll through a list.

**Field:** The location on a page where data or an option can be entered and shown.

**Scroll Bar:** When viewing a list of items that is too long to show on the screen, a scroll bar appears along the right side of the list. To scroll through a list, hold your finger or stylus on the scroll bar and move your finger or stylus up or down and the list of items will move up or down too.

## Turning AV8OR on/off

The first time your new AV8OR is turned on, the GPS receiver must collect satellite data and establish its present location. Before you turn on the unit, make sure that it has a clear and unobstructed view of the sky to receive satellite signals.

1. Ensure that the "Lock" switch is unlocked.
2. Hold the Power Key down until the blue screen shows.



Figure 1-6: AV8OR Power Up

3. To turn off the AV8OR, press and hold the Power Key until POWER OFF screen shows.



Figure 1-7: AV8OR Power off

## AV8OR SLEEP MODE

AV8OR can be put into sleep mode as shown in the figure below. AV8OR, while in sleep mode, continues to run in a low power mode.

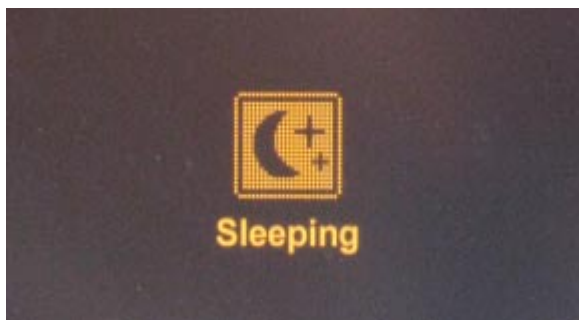


Figure 1-8: AV8OR Sleep Mode

## TURN SLEEP MODE ON AND OFF

1. To put the unit in **Sleep** mode, press and quickly release the Power soft Key until **Sleeping** shows on the screen for a moment, then the screen goes blank.
2. To wake up the unit, press and quickly release the Power soft Key.

## Main Menu

After the logo startup page shows, the MAIN MENU is displayed.

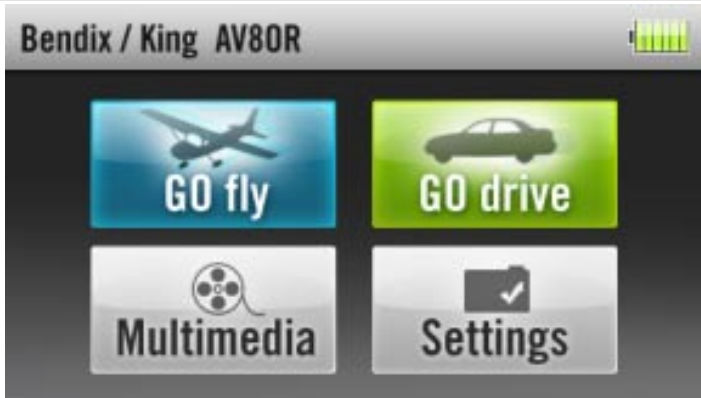


Figure 1-9: Main Menu

## Getting satellite signals

When the AV8OR is turned on, it automatically begins to search for satellite signals. This process can take a few minutes. Be sure the device has a clear and unobstructed view of the sky.

### VIEW GPS STATUS FROM SETTINGS

You can monitor GPS status by tapping the **Settings** soft key on the **Main Menu** page (refer to Figure 1-9, and tapping on the **GPS Status** soft key (refer to Figure 1-10).



Figure 1-10: Settings Page

The GPS Status page provides a visual reference of satellite acquisition, receiver status, current position and a reset mechanism.



**GPS Signal Strength**

The GPS Signal Strength page is the default page for GPS Status. As the receiver locks onto satellites, a bar appears for each satellite. The bar shows the signal strength for each satellite. The bar changes color from grey to blue when the satellite is locked.

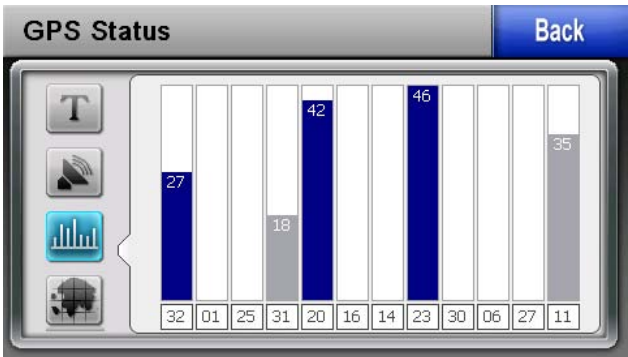


Figure 1-11: GPS Signal Strength Page – Locked and Unlocked



**Current Position**

Tapping this soft key displays the longitude, latitude, altitude (ALT) and UTC time information for the current position when the device has acquired a GPS satellite lock.



Figure 1-12: GPS Information of Current position



## GPS Data Flow

Tapping this soft key shows the GPS national marine electronics association (NMEA) data in real-time.

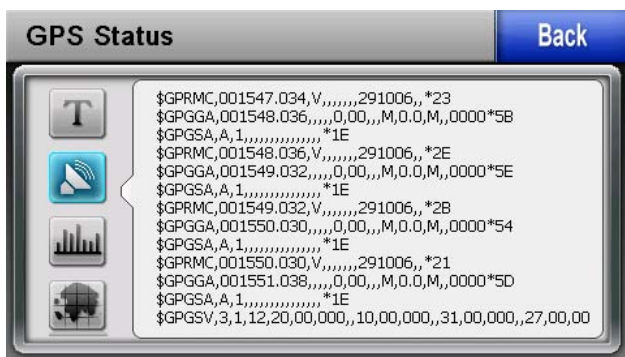


Figure 1-13: GPS Data flow



## Satellite Acquisition Reset

Tapping this soft key causes the GPS engine to reset. If the unit has difficulty acquiring satellites, tapping the GPS reset soft key will clear the GPS engine memory.

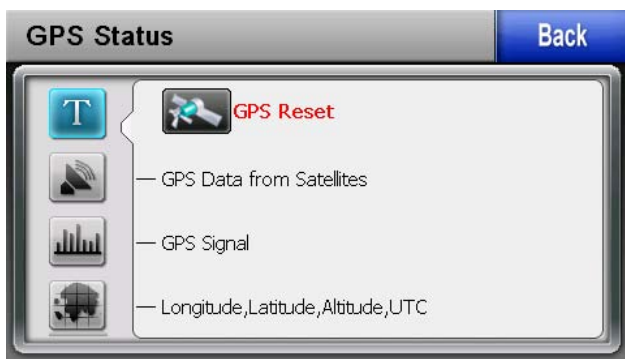


Figure 1-14: GPS Reset

Tap the  soft key to return to the Settings page.

***This Page  
Intentionally Left Blank***



## 2. AVIATION MODE OPERATION


**NOTE:** Chapter 2 documents the 02/05 version of the Go Fly program. The version number is shown at the bottom left corner of the Initial Title Page (Figure 2-1) upon startup. If you are using an earlier version, go to **[bendixking.com/av8or](http://bendixking.com/av8or)** for instructions on how to update your AV8OR to the latest version.

### BASIC OPERATION

This section introduces how to start the aviation mode navigation, and what the status of the program is during the initialization process.

#### Aviation Mode



On the Main Menu page, tap the  icon to start the Aviation mode navigation program.

#### PROGRAM STARTUP

While the Aviation mode is starting, a startup title page is displayed, as shown in the figure below.



Figure 2-1: Initial Title Page

A self-test status window is displayed under the title box. The self-test checks to make sure the internal navigation, cartography and terrain databases are correct. While the self-test is checking these databases, the window header **SELF TEST IN PROGRESS** is displayed in yellow.

A green check mark is placed to the right of each test item as it is checked.


If the initial self-test fails, the unit is unable to continue operating safely. A red  is displayed in place of the check mark and the first soft key changes to **HELP**, as shown in the figure below.



Figure 2-2: Self Test Failed

When the **HELP** soft key is tapped, a caution message is displayed as shown in the figure below.

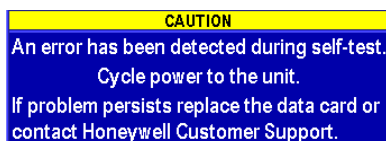


Figure 2-3: Self Test Failed Caution

**The unit should be turned off and then turned back on. If AV8OR still fails the self-test, please contact customer support.**

If the self-test finishes successfully, the self-test window header changes to **SELF TEST COMPLETED** in green, as shown in the figure below.



Figure 2-4: SELF TEST COMPLETED Page

The SELF TEST COMPLETED page shows for 2 seconds then the final title page is displayed as shown in the figure below.



Figure 2-5: Final Title Page

The final title page shows the subscription expiration dates of the present database, installed charts and the data providers in a scrollable window (if needed). Use the AV8OR as an aid to situational awareness only when the database is current.

The software level is shown on the bottom left side of the screen (current software level is 02/05).

For additional information on the present software and database versions, please go to the System Setup page and tap on the **Status Page** soft key to bring up the System Status Menu. Highlight the Software and Database Versions and tap the **Select** soft key to show the present software and database versions.

The user can browse the Bendix/King web page at **bendixking.com/av8or** to see if a newer version of the software or database is available.

If the **OK** soft key is pushed to acknowledge the Jeppesen database, the Aviation Map page is displayed, as shown in Figure 2-7: Map Page.

Figure 2-7If the **DEMO MODE** soft key is tapped, then AV8OR will enter a simulation mode.

## DEMO MODE

Demo Mode lets the user become familiar with handling the AV8OR system on the ground by running in a simulation mode. When the AV8OR is in Demo Mode, it performs the same as when it is receiving valid sensor signals to use the various functions. Demo Mode can only be activated on the final title page during startup, as shown in

Figure 2-5. After tapping the **DEMO MODE** soft key, the simulator shows a caution page which must be acknowledged before continuing, as shown in the figure below.



Figure 2-6: Demo Mode

Tap the **OK** soft key to acknowledge the caution and then the Map page is displayed.

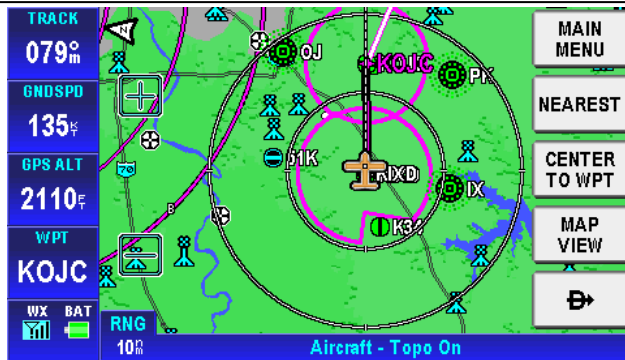


Figure 2-7: Map Page


### AVIATION MAIN MENU PAGE


Tap on the **MAIN MENU** soft key on the Map page to display the Aviation **Main Menu Page**.



Figure 2-8: Main Menu Page

An example of each function in Aviation Mode appears below. Each function has a specific use and is discussed later in this guide. The following figures are each of the function's first pages.

- Map:** Tap on the  soft key on the Aviation Main Menu to return to the Moving Map page. The Map mode is the primary mode of the system. Refer to the VFR Moving Map Function on page 2-10 for a detailed explanation of the MAP mode.

- Flight Plans:** Tap on the  soft key on the Aviation Main Menu to show the Flight Plan Index page. The Flight Plan Index page allows user Waypoints (WPT) and flight plans be edited and/or created. Refer to the Flight Plan Function section on page 2-62 for a detailed explanation of the use of flight plans.

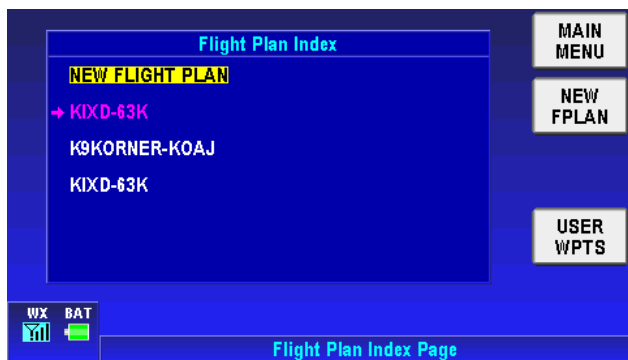


Figure 2-9: Flight Plan – Flight Plan Index Page


- Panel:** Tap on the  soft key on the Aviation Main Menu to show the Panel page. Refer to the PANEL FUNCTION section on page 2-128 for a detailed explanation of the Panel Page.



Figure 2-10: Panel Page

- Weather:** Tap on the  soft key on the Aviation Main Menu to show the Weather page (if weather is enabled in Device

Setup). The AV8OR system connects with a Bendix/King KDR-610 XM receiver or a WxWorx XM receiver through a Bluetooth or RS 232 interface to receive weather data from the XM Satellite Radio network. Refer to the Weather Function section on page 2-86 for a detailed explanation of the Weather function. Refer to the Connection to An External Weather Source section in the Appendix on page 6-9 for a detailed explanation on how to connect the AV8OR to an XM receiver.

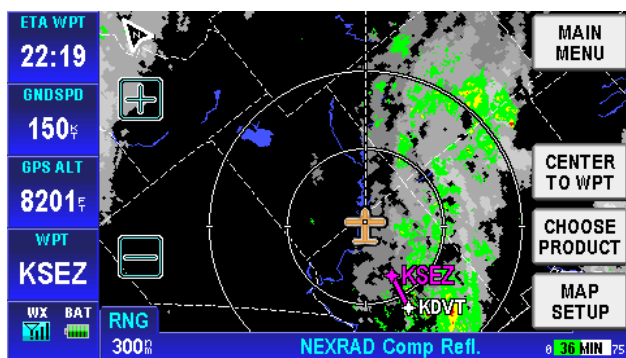



Figure 2-11: Weather – Weather Map Page

- Traffic:** Tap on the  soft key on the Aviation Main Menu to show the Traffic page. The AV8OR system connects through a RS-232 interface to devices such as the Zacon XRX traffic receiver. Refer to the Traffic Function section on page 2-120 for a detailed explanation of the Traffic function. Refer to the Connection to An External Traffic Source section on page 6-16 in the APPENDIX for a detailed explanation on how to connect the AV8OR to a Traffic receiver.

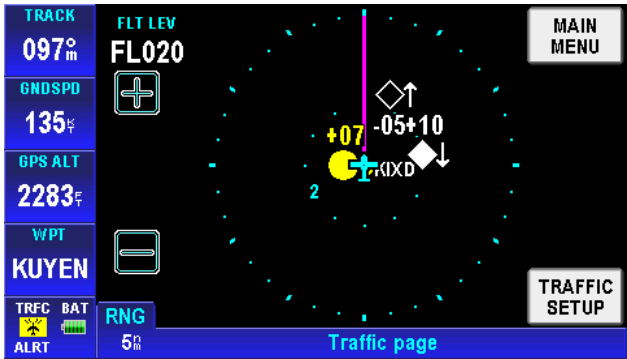



Figure 2-12: Traffic Main Page

- Taxiway: Tap on the  soft key on the Aviation Main Menu to show the Taxiway page. Refer to the Taxiways FUNCTION section on page 2-125 for a detailed explanation of the Taxiway function

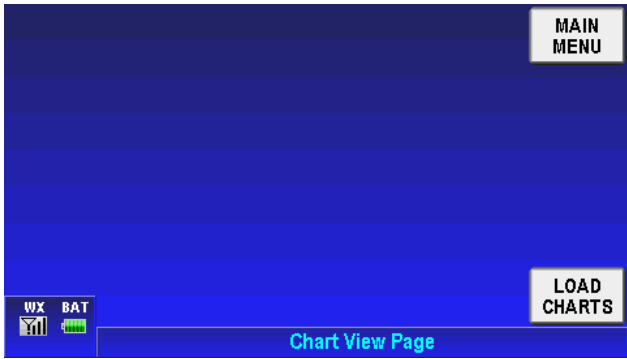



Figure 2-13: Taxiways – Info Page

- **Auxiliary:** Tap on the  soft key on the Aviation Main Menu to show the Messages page. Refer to the Messages Page section on page 2-130 for a detailed explanation of the Message function.



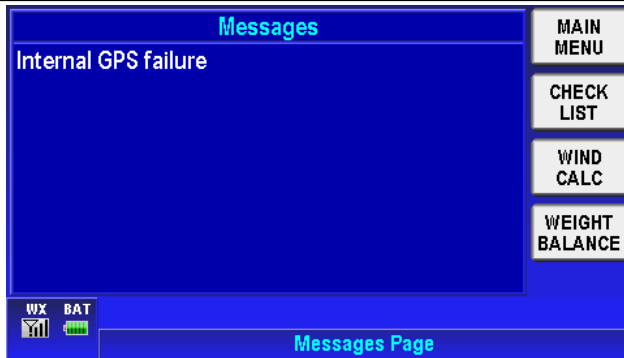


Figure 2-14: Messages – Messages Info Page


- Settings:** Tap on the  soft key on the Aviation Main Menu to show the Settings page. Use the System Setup Menu to setup map, navigation, data fields, flight plan and other display preferences. Refer to the System Setup Function section on page 2-145 for a detailed explanation of the system setup function.




Figure 2-15: System Setup – System Setup Menu page

- Exit:** Tap on the  soft key on the Aviation Main Menu to exit back to the Main Menu.

## VFR MOVING MAP FUNCTION

The AV8OR features a real-time moving map that can do much more than just plot your course. The core capability of AV8OR MAP mode function is its intuitive mapping and navigation function, which is capable of displaying highly detailed, vectored (point and line) maps. This detailed vector data includes road over flown data, street address data, airspace boundaries, airports, Navigational Aid (NAVAID)s, lakes, rivers, coastlines, cities, highways and terrain elevation data used to help situational awareness.

### Main Map Display Window

On the Aviation Main Menu, tap on the  soft key to enter the Main Map page, as shown in the figure below.

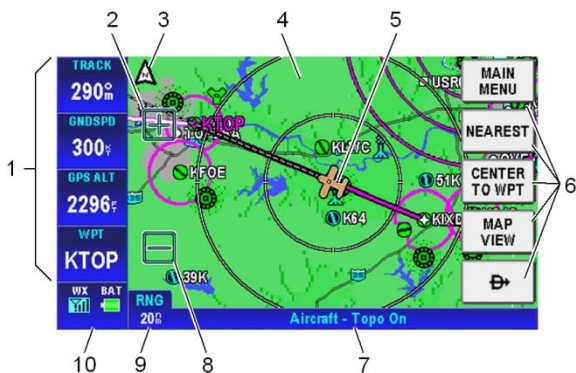




Figure 2-16: Main Map Display Page

**Data field information (1):** The data field information is displayed along the left side of the screen. For more information about the data field window configuration please refer to Data Fields in the next section.

The **ZOOM IN (2)**  icon decreases the displayed range of the map.

**North Pointer (3):** In the upper left corner of the Map display is a North pointer. The pointer has a triangle shape . The north pointer always points north to help orient the map view. Double tapping on

the north pointer toggles the map orientation between North Up and the Track Up mode.

**Map Page (4):** The map page is the main page for Go Fly aviation mode. The map page shows the aircraft position on the map.



**Aircraft Symbol (5):** A Fixed wing or Rotary wing aircraft symbol is displayed in the center of the screen that represents the actual position of the aircraft. The aircraft symbol points in the direction of the GPS track based on a valid GPS position fix.

- If Rotary Wing is selected as aircraft type, and AV8OR loses a valid GPS position fix, the aircraft symbol is removed from the screen.
- If Fixed Wing is selected as the aircraft type, and the aircraft stops, the aircraft symbol stays on the screen and point in the direction of the last known GPS track. When the GPS speed is greater than 3 kts, the aircraft symbol follows the GPS track as the heading source. The symbol is changed in the System Setup – General System Setup page.

**Menu Soft keys (6):** The menu soft keys are displayed on the right side of the screen. They allow the user to navigate through the menu directory. The soft keys are shown initially when the Map page is first displayed. After a configurable period of time, the soft keys are removed from the Map page. Tapping on the Map page causes the menu soft keys to display again. The **MAIN MENU** soft key returns to the Aviation Main Menu page.

**Title Bar (7):** The title bar shows the currently selected map view across the bottom of the Map page. The Title Bar area also provides fast access to primary pages. For more information on how fast access works, refer to the Fast Access section on page 2-12.




The **ZOOM OUT (8)** icon increases the displayed range of the map.



**Map Range (9):** The current range (labeled **RNG**) is displayed in the range tag window in the lower left corner of the display. The range distance unit (nautical miles, statute miles or kilometers) is configured in the System Setup-GENERAL SYSTEM SETUP page. Range is measured on the map as the distance from the center of the aircraft symbol to the outer ring around the aircraft. The inner

ring is at one-half the displayed range value. These rings are turned on or off in System Setup-MAP SETUP page.

**Status window (10):** When there is a new aircraft status, a flashing icon is displayed in the status window in the left bottom of the data

window column . The status window also shows the battery condition and the status of the XM weather receiver (if installed) and

traffic information (if installed) . 

**Caution:** When AV8OR has lost its GPS position fix, a blue “No position data” caution message is displayed across the screen and the aircraft symbol is not displayed.

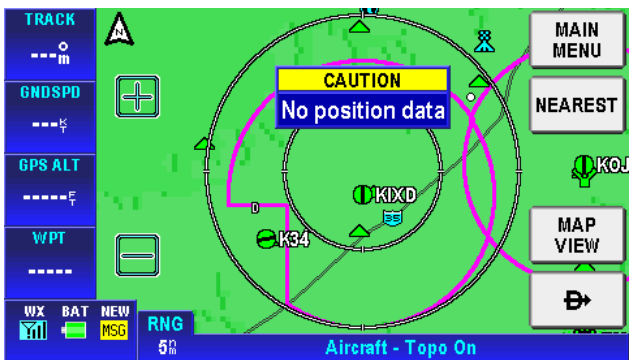


Figure 2-17: Map – No position data CAUTION

If no altitude data is available and the map display option is set to Relative Terrain Map, then a “No Altitude Available” message is displayed.

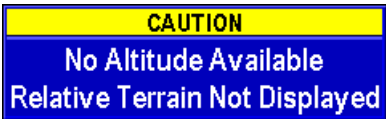


Figure 2-18: Map – No Altitude Available CAUTION

## FAST ACCESS

Fast access lets you rapidly change between the configured primary information pages (Map, Weather or Traffic) or rapidly access the Map page. There is an area within and above the Title Window that

you can use to change to a different page or jump back to the Map page as shown in the figure below.

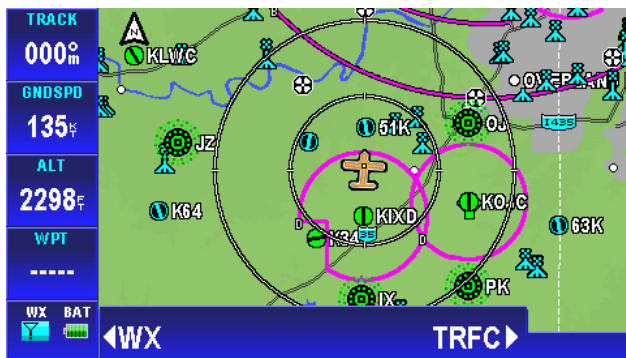


Figure 2-19: Fast Access

If the Map, Weather or Traffic page, is displayed, slide your finger or stylus left or right in the Fast Access area to cycle forwards or backwards through the available pages.

If a page other than Map, Weather or Traffic page is displayed, slide your finger or stylus left or right in the Fast Access area to display the Map page.

Tap within the Fast Access area to display directional windows on each side of the Fast Access area as shown in the figure above. The directional windows show which page will be displayed if you touch and slide your finger or stylus in that direction.

The following pages do not have Fast Access availability.

- Start Up pages
- Main Menu
- Exit
- Any page that has an edit selection window. (This is a menu list that is displayed when the **EDIT** soft key is touched or the editable field is double touched. The user must make a selection before jumping to the MAP page)

## IMAGE OVERLAYS

Image overlays are user selectable images that can be configured to display on the map page and other primary maps. Each primary map allows different overlays to be configured for it.

The following table lists the image overlays that can be displayed on the primary maps:

- **Flight Plan:** When there is an active flight plan, the legs and turning points of the flight plan are shown (Including Direct-To).
- **Traffic:** When a traffic device has a connection with AV8OR and has been enabled, traffic icons are displayed on the map page, if available.
- **Flight Log Trail:** Flight log points are plotted when the flight log overlay has been enabled for the current map scale.

The following overlays require a current XM weather subscription and a connection to a XM weather receiver to be displayed.

- **Metar:** If a meteorological aviation report (METAR) is available, the METAR icon shows on the map.
- **TFR:** If a TFR is available, a yellow and black dashed TFR boundary is displayed on the page.
- **Lightning:** If lightning strike data is available, lightning strike icons are displayed on the page.
- **Precip Type:** If precipitation type data is available, the precip type icon is displayed on the page.
- **Nexrad Coverage:** If Nexrad coverage is available, it is displayed on the page.
- **Cloud Top:** If cloud top data is available, it is displayed on the page.
- **Storm Cell:** If storm cell data is available, it is displayed on the page.

The table below show which overlays are available for each primary map: An "X" in the column indicates that the overlay is available for the primary page at the top of the column

Table 2-1: Image Overlays on Primary Maps

	<b>Topo On Map</b>	<b>Topo Off Map</b>	<b>Nexrad Map</b>	<b>Metar, Pirep, Winds Aloft Maps</b>	<b>Airmet Sigmat Maps</b>
<b>Flight</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>

	Topo On Map	Topo Off Map	Nexrad Map	Metar, Pirep, Winds Aloft Maps	Airmet Sigmet Maps
<b>Plan</b>					
<b>Traffic</b>	X	X	X	X	X
<b>Flight Log Trail</b>	X	X	X	X	X
<b>Metar</b>	X	X	X		
<b>TFR</b>	X	X	X		
<b>Lightning</b>	X	X	X		
<b>Precip Type</b>			X		
<b>Nexrad</b>			X		
<b>Cloud Top</b>			X		
<b>Storm Cell</b>			X		

Overlays are configured in the Map Setup section. The Topo On Map Overlay page is shown in the figure below.

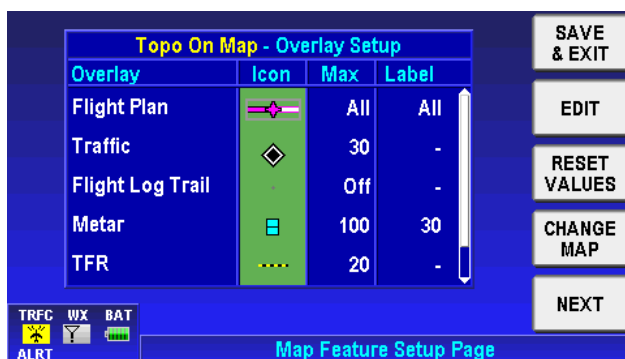


Figure 2-20:Topo On Map - Overlay Setup

Refer to the Map Setup section on page 2-148 for more information on how to configure the image overlays.

## CAUTION

The lightning strikes and displayed weather are for informational purposes only. Weather information from the XM receiver is not real time and the displayed weather images should not be used for tactical flying.

### MAP PAGE POINTER/NON-POINTER:

The Non-pointer MAP mode screen is displayed showing the aircraft's current position on the map using the aircraft symbol in the center of the screen, if valid GPS signals are available.



Figure 2-21: Map – Non-pointer Map mode

If the soft keys have been hidden, touching anywhere on the screen in the Main Map Window, will activate a black arrow pointer and the **CLEAR PTR** and **PTR MENU** soft keys will be shown. The pointer follows the finger or stylus around the screen until the finger or stylus is lifted from the screen. The pointer can be moved in any direction to interrogate WPTs or specific map features, such as: airports, airspace, user defined WPTs and so on. While the pointer is active the map stops moving to permit easier pointer access to objects, and the aircraft moves over the map.





Figure 2-22: Map – Pointer Map mode

In Pointer Map mode, the pointer tag window displays the pointer position in the currently selected coordinate system. Below the pointer tag window, the title window component displays the bearing and distance of the pointer relative to the aircraft's position.

PTR: N52°10.80 E001°14.01  
PBRG: 220% PDIS: 0.2

Figure 2-23: Map – Pointer Tag Window / Title Window

The pointer is removed from the screen after 30 seconds of no further input (touching and dragging of the pointer).

**Auto-Hide Soft keys:** When the map mode is displayed without touching any control, the on-screen soft key labels are removed from the screen after a period of time that is configurable, as shown in Figure 2-24. The default time is 30 seconds.



Figure 2-24: Map – Without soft keys

For configuration of the Auto-Hide Soft keys, please refer to the General System Setup section on page 2-146 in the System Setup section.

The labels are redisplayed when the user touches the screen. This feature maximizes the visible area for mapping. This feature can be disabled by setting the Auto-Hide Keys on the Map Mode Page to OFF in the General System Setup page (Refer to the General System Setup section on page 2-146).

## DATA FIELDS

Up to four data windows can show at a time on the left side of the map page. Up to 9 data windows can be configured for display. The five data windows that do not show on the page are displayed by dragging the data windows up or down to show the data fields that are off screen.

Data fields are selected in the System Setup Menu, Refer to the Data Field Setup section on page 2-156.

The Data Fields that follow can be selected for display on the map page.

### Altitude Data Field



The Altitude data field displays the highest priority enabled GPS altitude source.

### Bearing Data Field



The Bearing data field displays the bearing of the current destination WPT for the aircraft position in degrees relative to magnetic north.

### Course Deviation Indicator (CDI) Data Field



The Course Deviation Indicator data field displays the perpendicular distance from the aircraft position to the desired track. The triangle in the center displays whether the aircraft is going TO or FROM the destination WPT. If the triangle points upwards, the aircraft is going **TO** the destination. If the triangle points downwards, the aircraft is going **FROM** the destination.

The table below displays the full scale limits for the CDI.

Table 2-2 Course Deviation Limits

Units	Available CDI limits
Nautical miles	0.3 nm, 1.0 nm and 5.0 nm
Statute miles	0.4 sm, 1.0 sm and 5.0 sm
Kilometers	0.6 km, 2.0 km and 10.0 km

**Departure Time Data Field**

The departure time data field displays the departure time when the ground speed of the aircraft is 20 knots or higher. The time is displayed in HH:MM format. The time is dashed if there is no departure time available.

**Destination Waypoint Ident Data Field**

The **DEST WPT** data field displays the ident of the final destination waypoint.

If the waypoint ident is unavailable then dashes are displayed.

When a waypoint identifier is displayed in the data field, the waypoint ident data window is an "active" data window. Double tap" on the data window to go to the waypoint information page.

The waypoint ident is truncated to fit into the size of the data window.

**Distance to Waypoint Data Field**

The distance to waypoint data field displays the distance from the aircraft to the destination waypoint. The distance is displayed in the currently selected units for distance.

**Desired Track Data Field**

The desired track data field displays the magnetic angle from the start waypoint to the destination waypoint as an integer value

**En-Route Safe Altitude Data Field**

The en-route safe altitude data field displays the highest "minimum off-route altitude" along the track line between the start

and destination waypoints. The ESA is displayed in the currently selected altitude units.

**Estimated Time of Arrival for Next Leg Data Field**



The **ETA LEG** data field displays the calculated arrival time calculated as the distance to the next waypoint, divided by the ground speed, plus the current time.

**Estimated Time of Arrival Data Field**



The estimated time of arrival data field displays the calculated arrival time calculated as the distance to the destination waypoint, divided by the ground speed, plus the current time.

**Estimated Time En-Route for next Leg Data Field**



The **ETE LEG** data field displays the calculated time en route as the distance to the next waypoint, divided by the ground speed. If the ETE is greater than 10 minutes then the format is HH:MM. If HH is less than 10 then no leading zeroes are displayed. Otherwise the format is MM:SS, with leading zeroes displayed. If the ETE is invalid or greater than 24 hours then "--:--" is displayed.

**Estimated Time En-Route Data Field**



The estimated time en-route data field displays the calculated time en route as the distance to the destination waypoint, divided by the ground speed. If the ETE is greater than 10 minutes then the format is HH:MM. If HH is less than 10 then no leading zeroes are displayed. Otherwise the format is MM:SS, with leading zeroes displayed. If the ETE is invalid or greater than 24 hours then "--:--" is displayed.

Examples are shown in the following table:

Table 2-3 Calculated Time En Route

1hr 55 min	1	:	55
1min:55 sec	01	:	55
24 min :			24
35 sec	00	:	35

## Flight Time Data Field



The flight time data field displays the current flight duration in HH:MM format. The flight timer displays the current time in flight or, if the flight has ended, the duration of the flight just ended. The flight timer begins counting when the ground speed exceeds 20 knots. The flight timer continues until the unit shuts down, or until the ground speed has been below 3 knots for 5 minutes. If the ground speed exceeds 20 knots after the flight time had previously stopped then the flight time continues from the previous flight time.

## Groundspeed Data Field



The ground speed data field displays the current aircraft ground speed in the configured units.

## Minimum Safe Altitude Data Field



The minimum safe altitude data field displays the minimum off-route altitude (from the Jeppesen MORA database.) at the current aircraft position.

The MSA value is displayed in the currently selected units for altitude.

If the position is invalid then the MSA value is displayed as dashes.

## Near Position Data Field



The near position data field displays the current aircraft position relative to a near-by database feature that is determined by the user configuration.

If the displayed distance to the nearest selected database feature is less than 0.1, in the currently selected distance units, then the position is described as 'AT' the database feature.

If the distance is 0.1 or more then the compass bearing from the database feature is also displayed.

The bearing is one of sixteen compass bearings (e.g. ENE, NE, and SSW).

The icon, used to display the database item on the map, is displayed immediately below the ident.

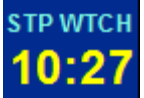
The ident is displayed to the maximum width displayable in the selected data window size.

### Present Position Data Field



The present position data field displays the coordinates of the aircraft position in the currently selected coordinate system. If the present position is unknown then dashes are displayed.

### Stop Watch Data Field



The Stop Watch data field displays the current value of the Stop Watch in MM:SS format.

The time counts up from 00:00 when enabled (started) and the text color changes to yellow.

The time stops counting when disabled and the text color changes to white.

The time is displayed as --:-- in white text when the window is first displayed.

The largest value that can show is 99:59 at which time it rolls over to 00:00.

Double tap on the **STP WTCH** data field to start, stop or clear the timer.

### Time Data Field



The time data field displays the current system time in the selected time zone.

The selected time zone abbreviation is displayed in the data window title, after the word TIME.

If the time is unavailable then dashes are displayed.

The table below lists the time zones that are selectable:

Table 2-4 Time Zones

<b>Time Zone Abbreviation</b>	<b>Description</b>	<b>Offset from UTC</b>
LCL	Local time – user configurable offset from UTC	User defined
UTC	Universal time	0:00
GST	Greenland Standard Time	-3:00
GDT	Greenland Daylight Saving Time	-2:00
ATS	Atlantic Standard Time	-4:00
ATD	Atlantic Daylight Saving Time	-3:00
EST	Eastern Standard Time	-5:00
EDT	Eastern Daylight Saving Time	-4:00
CST	Central Standard Time	-6:00
CDT	Central Daylight Saving Time	-5:00
MST	Mountain Standard Time	-7:00
MDT	Mountain Daylight Saving Time	-6:00
PST	Pacific Standard Time	-8:00
PDT	Pacific Daylight Saving Time	-7:00
AKS	Alaska Standard Time	-9:00
AKD	Alaska Daylight Saving Time	-8:00
HAS	Hawaii Standard Time	-10:00
HAD	Hawaii Daylight Saving Time	-9:00
SST	Samoa Standard Time	-11:00
SDT	Samoa Daylight Saving Time -	-10:00

### Track Angle Error Data Field



The track angle error data field displays the difference between the desired track and the current aircraft track over ground in integer degrees. An arrow indicates the direction to steer to reduce the track angle error.

### Track Angle Data Field



The track angle data field displays the track angle of the aircraft over the ground in integer degrees relative to magnetic north.

### Mini Traffic-Targets Data Window



The mini traffic-targets data field displays a reduced representation of the main traffic display within a double height data field. All of the traffic targets are displayed relative to the nose of the aircraft. The traffic-targets only show when the Map page is in **"Track Up"** mode. This prevents confusion between the main Map page display and the mini traffic display.

The mini traffic-targets data window displays targets out to 6 nm (7 sm or 10 km).

If the main image display is set to North-Up, the message "NOT SHOWN IN NORTH UP" is displayed within the data window.

If the currently configured traffic unit has failed the message "FAIL" is displayed in yellow text in the center of the mini traffic-targets data window.

If the traffic unit has been removed from the system the message "NOT INSTALLED" is displayed in white text in the center of the mini traffic-targets data window and no traffic-targets are displayed.

### Track To Steer Data Field



The track to steer data field displays the calculated optimum track over ground angle to be flown to achieve the desired track to the destination waypoint as an integer value relative to magnetic north.

### Wind Vector Data Field



The wind vector data field displays the wind speed and direction the wind is from in the presently selected speed units.



The arrow represents the direction of the wind relative to true north (direction the window is from. (As the aircraft direction changes, the wind direction arrow follows the direction of the aircraft)

If there is a valid Track then the wind direction is be displayed as Magnetic North otherwise displayed as True North.

If no valid wind vector data is available then "NOT AVAILABLE" is displayed in the wind vector window.

### Waypoint Ident Data Field



The waypoint ident data field displays the ident of the current destination waypoint.

If the waypoint ident is unavailable then dashes are displayed.

When a waypoint identifier is displayed in the data field, the waypoint ident data window is an "active" data field. Tap the waypoint ident data field twice to display the **MORE INFO** window for this waypoint.

The waypoint ident is truncated to fit into the size of the data window.

### Cross Track Error Data Field



The cross track error data field displays the magnitude of, and direction to steer, to reduce the perpendicular distance between the aircraft position and the desired track. An arrow is displayed to the right of the cross track error value indicating the direction to steer to reduce the cross track error.

## VFR Moving Map Operation

### MAP ZOOMING

**ZOOM IN** or **ZOOM OUT** changes the current map range to the next value. Holding either soft key smoothly increments or decrements (changes the range by 10 percent) through the ranges permitting the user to stop at almost any range value desired. Pushing the opposite ZOOM soft key steps the range in the opposite direction. The map range value will be displayed on the **RNG** label.

The ZOOM IN and ZOOM OUT soft keys disappear when the maximum or minimum limit is reached.

When the pilot operates the unit outside of the data base region contained on the SD card and zooms into a range that requires the high resolution terrain data, the pilot will see a purple background screen color and a message stating "Outside Database Region".

This warning and alert is issued at all zoom levels where the high resolution terrain data is not available.

## MAP VIEW

The **MAP VIEW** soft key allows the user to select the information to be shown on the map. Tapping the **MAP VIEW** soft key on the MAIN MAP DISPLAY window brings up the **CHANGE VIEW** soft key.

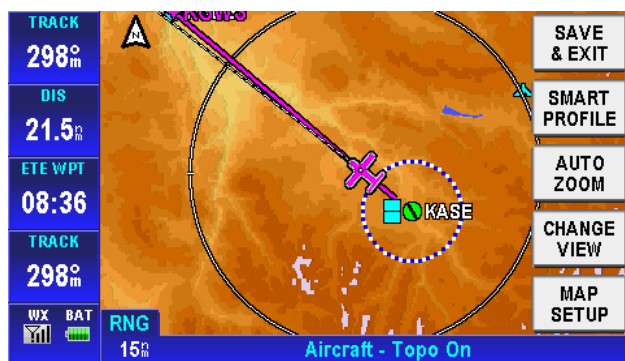


Figure 2-25: Map – Map View Setup

Tap the **SAVE & EXIT** soft key to return to the Map page.

## Smart Profile

The Smart Profile mode displays the vertical profile of the flight path along the route of flight above the title bar. A cross section of the terrain for the flight is shown on the vertical profile. A dashed line is shown to represent the altitude of the flight path.

If Smart Profile is OFF, tapping the **MAP VIEW** soft key ,then the **SMART PROFILE** soft key toggles Smart Profile to ON. The map image shrinks 25% to show the SMART PROFILE on the bottom on the screen.

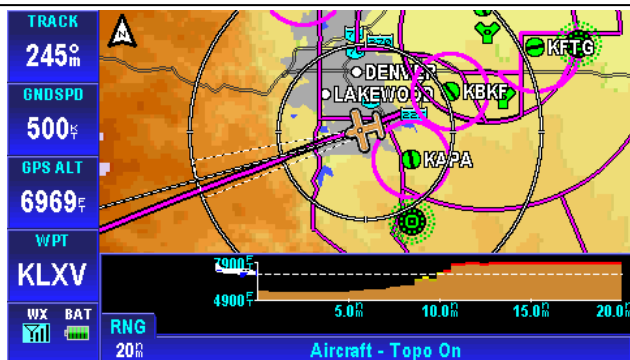


Figure 2-26: Map – Smart Profile On

If Smart Profile is ON tapping the **SMART PROFILE** soft key toggles the Smart Profile mode to OFF.

Vertical profiles of airspace vertical boundaries and man-made obstructions are also displayed in the Smart Profile window.

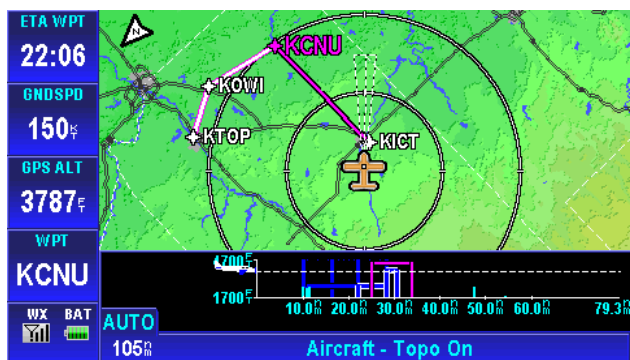


Figure 2-27: Smart Profile – Airspace Vertical Boundaries

### Auto Zoom

The Auto Zoom function automatically changes the zoom level on the map page. The Auto Zoom function can be turned on or off or suspended. See the Map Setup section on page 2-148 for instructions on how to change the Auto Zoom mode.



Figure 2-28: Auto Zoom Mode

When flying the last leg of a Flight Plan or when flying a Direct To, the system automatically zooms to a screen range that keeps the destination WPT within the display area. The system continues to zoom in to the lowest zoom level.

When the lowest zoom has been reached and the aircraft begins to fly away from the destination WPT, then the system zooms out automatically to keep the WPT within the display area.

When auto zoom is in operation AUTO (Automatic) is shown in the RNG (Range) display field. Pushing either the ZOOM IN or ZOOM OUT soft key suspends the Auto Zoom mode. An "Auto Zoom Suspended" message shows on the top of the MAP page for a few seconds.

To reactivate Auto Zoom mode, tap the MAP VIEW soft key to display the MAP VIEW menu as shown in the figure below.

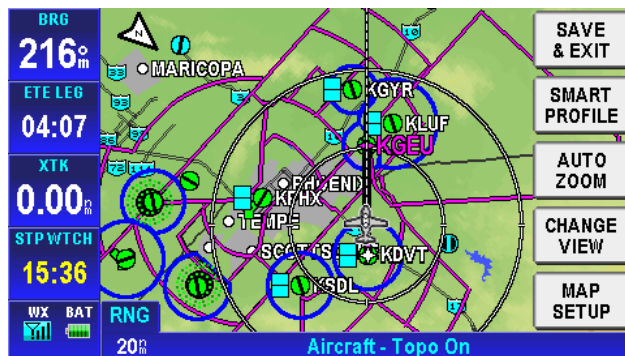


Figure 2-29: Auto Zoom Suspended

An **AUTO ZOOM** soft key is displayed in the menu. The **AUTO ZOOM** soft key only shows when the Auto Zoom mode has been suspended.

Tap the **AUTO ZOOM** soft key to resume the Auto Zoom mode. An "Auto Zoom Active" message shows on the top of the MAP page for a few seconds.

### Change View

Tapping the **CHANGE VIEW** soft key toggles the display through the different map types. The Map page defaults to **Topo On**.

- **Topo On**

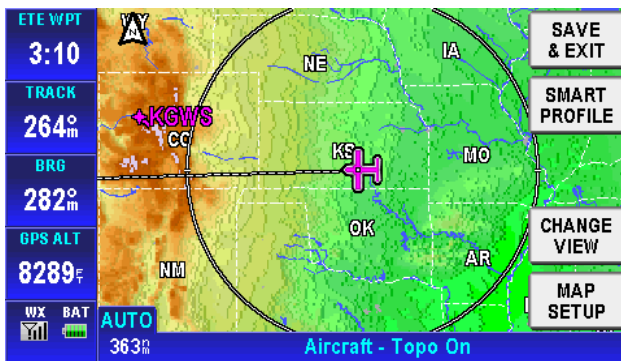


Figure 2-30: Map – Topo On

- **Relative Terrain**

**CAUTION**

**NEVER USE THE TOPOGRAPHIC ELEVATION  
DISPLAYED ON THIS EQUIPMENT AS YOUR SOLE  
REFERENCE FOR TERRAIN AVOIDANCE.**

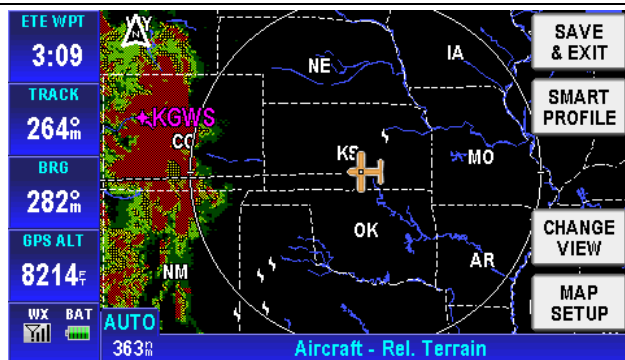


Figure 2-31: Map – Relative Terrain

- On the Relative Terrain map, the terrain is colored according to its height relative to the aircraft, as shown in the following table.
- A 0.5 nm radius circle around each is colored according to the height of the obstacle relative to the aircraft, as shown in the following table.

Table 2-5 Relative Terrain

Relative Terrain Altitude (feet)	Relative Obstacle Altitude (feet)	Color	Dither Pattern Percent Filled
$\geq +250$	$\geq -250$	Red	50%
-250 to +249	-750 to -251	Yellow	50%
-750 to -251	-1250 to -751	Yellow	25%
-1250 to -751	-17500 to -1251	Dark Green /Dark Yellow	50%
-2000 to -1251	< -2000 to -1751	Dark Green	100%
< -2000	< -2000	Black	100%

- At ranges of 200 nm and less, areas not covered by the terrain database are displayed using a 50 % red dithered pattern.
- The Relative Terrain Map is rotated and scaled consistent with the current map location, orientation and range.

- When terrain data is scaled for display, the highest elevation is used for each location to determine its color.
  - The 0.5 nm radius circles around obstacles are displayed only if their radii after scaling are large enough to be shown.
  - If altitude information is not available then a warning message is displayed on the map image with the text "No Altitude Available. Relative Terrain Not Displayed."
- **Topo Off**

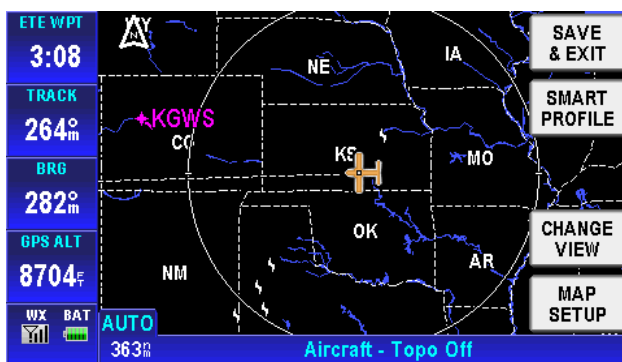


Figure 2-32: Map – Topo Off

Tapping the **MAP SETUP** soft key allows the user to configure the Map Setup options. For more detail information about Map Setup, refer to the Map Setup section on page 2-148 in the System Setup section.

## AIRPORTS

Airports show on the MAP page as blue or green circles with a line drawn through them. The line indicates the direction of the primary runway at the airport. Blue circles represent VFR airports and green circles represent IFR airports.

Tap on an airport icon to bring up the **MORE INFO** soft key.

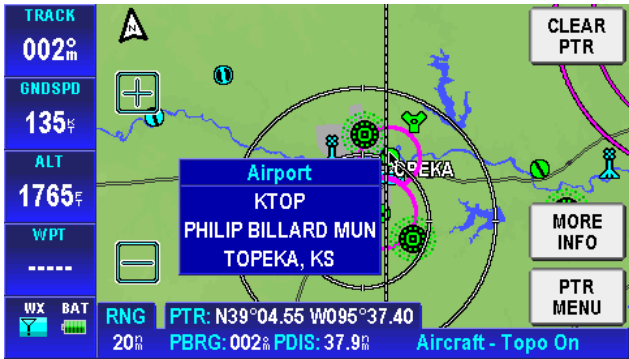


Figure 2-33: Airport – MORE INFO

Rnwys Tab

Tap on the **MORE INFO** soft key to display the Airport Information – Runways page as shown below.

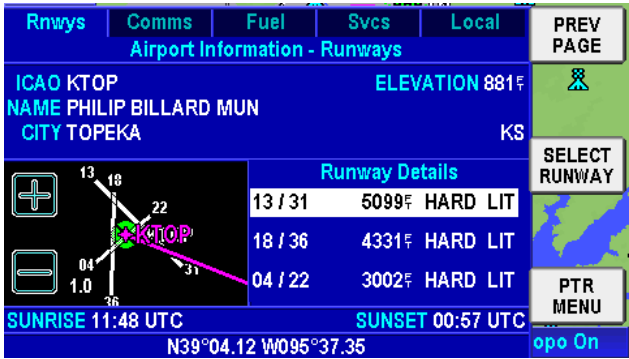


Figure 2-34: Airport – Rnwys Page



and icons allow the user to change the airport area map range.

Tap on a runway listed under the Runway Details menu to highlight the runway. Tap on the **SELECT RUNWAY** soft key to cause extended centerlines to be drawn from both ends of the runway on the MAP page.

The centerlines extend to 10 nm from each side of the airport symbol and show whenever the range is less than or equal to 100 nm.



The extended runway centerlines are displayed in a light blue and white line as shown below.

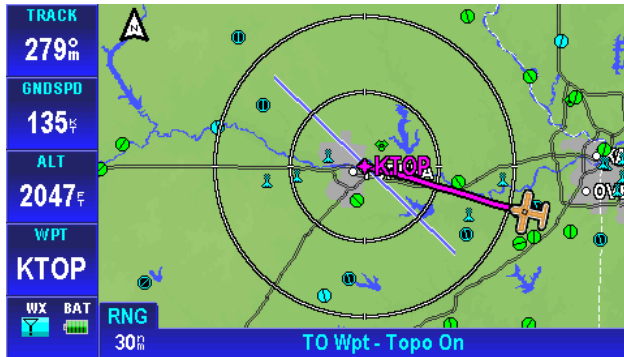


Figure 2-35: Airports – Extended Centerline on Map page

.On the Airport Information – Runways page, the selected runway background changes to blue with a white outline as shown below.

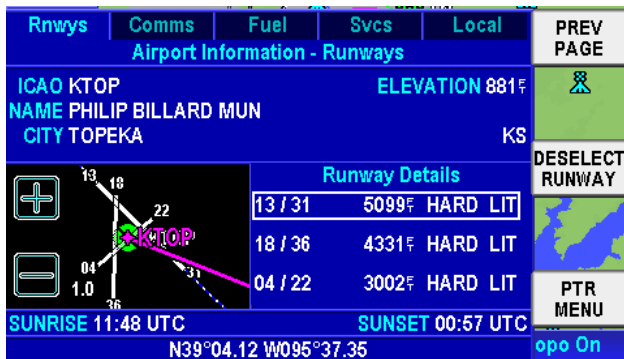


Figure 2-36: Airports – Deselect Runway

Tap on the **DESELECT RUNWAY** soft key to remove the extended centerlines from the MAP page.

**NOTE:** When a new airport is selected, the extended centerlines on the current airport are turned off.

Additional pages of airport information are shown as tabs across the top of the page.

The tabs are as follows:

- **Rnwys** – Shows Airport and Runway information.

- **Comms** – Lists the communication frequencies for the airport.
- **Fuel** – Shows fuel availability and prices for the airport.
- **Svcs** – Shows available services at the airport.
- **Local** – Shows local information about the airport.

**NOTE:** A subscription is required to the “Flight Guide Fuel Pricing and Airport Services” database to display Fuel Pricing data. The subscription is available at **bendixking.com/av8or**. Daily downloads are available.

**Comms Tab**

Tap on the **Comms** tab to display the Airport Information – Comms page as shown below.

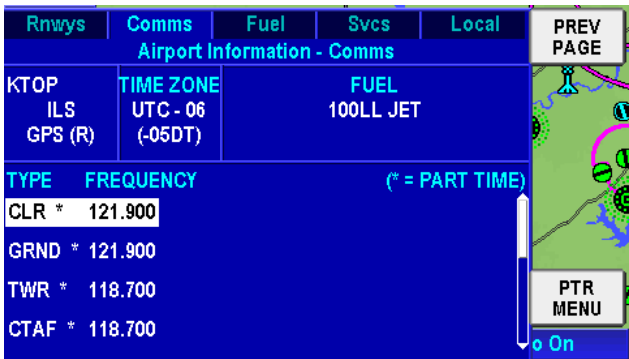


Figure 2-37: Airport – Comms Page

The Comms page shows the following information:

- Airport Identifier
- Type of Approaches available at airport
- Time Zone
- Fuel type available
- Type of Frequency, frequency and whether it is part time or not.

Tap the **PREV PAGE** soft key to return to the previous page or tap one of the other tabs to view the corresponding page.

**Fuel Tab**

Tap on the **Fuel** tab to display the Airport Information – Fuel Pricing page as shown below.

Rnwys	Comms	Fuel	Svcs	Local	PREV PAGE
Airport Information - Fuel Pricing					
KTOP PHILIP BILLARD MUN					
-----					
Kansas Air Cntr					
Avfuel	100LL	FS	\$5.69 as of OCT 24, 2008		
	JETA	FS	\$4.73 as of OCT 24, 2008		
					SEARCH PRICE
					PTR MENU
					On

Figure 2-38: Airport – Fuel Page

The Fuel Pricing page displays fuel pricing information for all facilities at the airport that are listed in the Airport Services database. The following fuel information is displayed, if available:

- Facility name
- Name of the fuel supplier
- The type(s) of fuel
- The Self Service price
- The Full Service price
- The date that the data was last updated

Tap the **PREV PAGE** soft key to return to the previous page or tap one of the other tabs to view the corresponding page.

Tap the **SEARCH PRICE** soft key to display the Nearby Fuel Price Comparison window as shown below.

Rnwys	Comms	Fuel	Svcs	Local	PREV PAGE
Nearby Fuel Price Comparison					
Aprt	Type	Self	Full	Rng / Brg	Age
1 KUKL	100	N/A	\$3.34	5.1nm / 186nm	454d
2 KOWI	Jet	N/A	\$4.75	23.3nm / 063nm	454d
3 K68	Jet	N/A	\$4.10	24.0nm / 102nm	454d
4 KFOE	Jet	N/A	\$5.22	33.9nm / 000nm	454d
5 K81	Jet	\$2.83	N/A	38.2nm / 072nm	454d
6 13K	Jet	N/A	\$3.65	42.4nm / 217nm	454d
					AIRPORT INFO
					PTR MENU
					On

Figure 2-39: Nearby Fuel Price Comparison

The Nearby Fuel Price Comparison page shows a list of available fuel types and prices at nearby airports. The list initially shows the closest airports first. Tap on titles at the top of each column to sort the airports by the column title.

Tap on an airport identifier to highlight it and then tap the **AIRPORT INFO** soft key to display the airport information page for the selected airport.

Tap the **PREV PAGE** soft key to return to the previous page or tap one of the other tabs to view the corresponding page.

### Svcs Tab

Tap on the **Svcs** tab to display the Airport Information – Airport Services page as shown in the figure below.

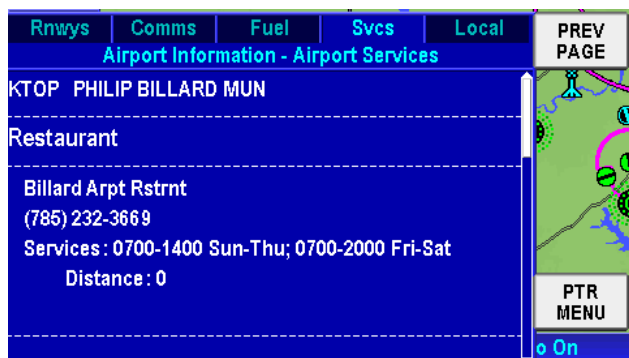


Figure 2-40: Airport – Svcs Page

This page displays the services available at each provider on the airport that are listed in the Airport Services database.

Tap the **PREV PAGE** soft key to return to the previous page or tap on of the other tabs to view the corresponding page.

### Local Tab

Tap on the **Local** tab to display the Airport Information – Local Services page as shown in the figure below.

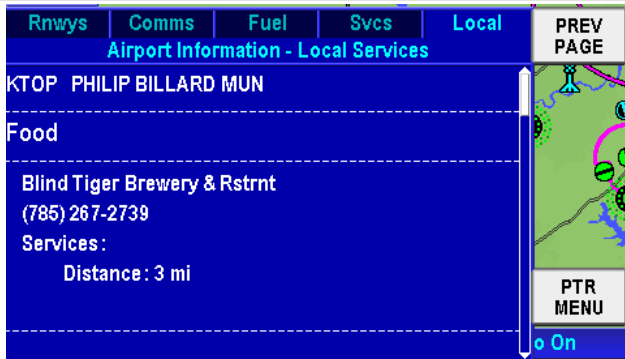


Figure 2-41: Airport – Local Page

This page displays the services available near the selected airport but not on the actual airport.

The local services that display are as follows, if available:

- Accommodations – Hotels/Motels
- Restaurants
- Taxis
- Car Rentals

The distance from the airport is listed for each service.

Tap the **PREV PAGE** soft key to return to the previous page or tap on of the other tabs to view the corresponding page.

## NEAREST – SELECT NEAREST DESTINATION

The **NEAREST** soft key gives access to the Nearest Database Selection window, as shown in the figure below. The **NEAREST** soft key lets the user get information about a near selection or navigate using a **D** soft key to any WPT within the nearest database.

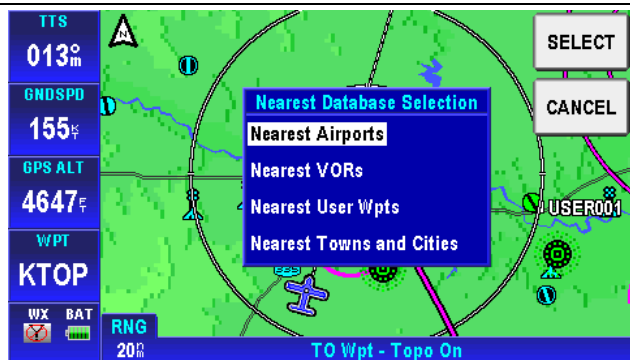


Figure 2-42: Map – Nearest Database Selection

Tapping the **NEAREST** soft key on the Map page shows the **Nearest Database Selection** menu. In the menu you can select; **Nearest Airports**, **Nearest VORs**, **Nearest User WPTs** or **Nearest Towns and Cities** as a destination.

The 40 nearest Airports/Helipads, VORs or User Waypoints or a combination of them that are nearest to the aircraft's current position are accessible through the Nearest Database Selection menu.

To select an item as your destination from the Nearest Database Selection Menu:

Tap the **NEAREST** soft key in MAP mode.

Double tap the nearest selection or tap it once and tap the **SELECT** soft key to select the nearest type. Select the nearest airport, VOR, User Wpt or Town or City from the list to highlight the selection and then tap the **DT** soft key to set a direct to course from the aircraft's present position to the selected destination.

To cancel the active Direct-To navigation, tap the **DT** soft key, tap the **Clear** soft key on the virtual keyboard and then tap the Enter soft key.



Figure 2-43: Map – Direct-To OFF

## Nearest Airports

Double tap on the **Nearest Airports** selection or tap once on the **Nearest Airports** selection and tap the **SELECT** soft key to show the Nearest Airports.



Figure 2-44: Nearest Airports

## Nearest Airports Soft Keys

Tap the **PREV PAGE** soft key to return to the Nearest Database Selection window.

Tap the **MORE INFO** soft key to display additional information about the highlighted airport from the list. Tap the **D** soft key after selection of an airport to set a new course from the aircraft's present

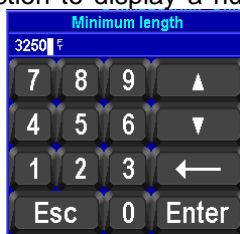
position directly to the selected airport. The new Direct-To course is displayed on the map.

Tap the **AIRPORT FILTER** soft key to configure the airport filter by setting the minimum runway length and surface requirements. The filter will not allow airports below the minimum requirements to be displayed in the list.



Figure 2-45: Map – Airport Filter

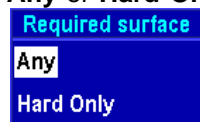
Double tap on the **Minimum length** selection to display a numeric



keypad to enter the minimum length. The minimum runway length will be rounded to the nearest hundred feet.

Double tap on the **Required surface** selection to select the type of surface for the airports you want to filter.


**Any** or **Hard Only** can be selected for the required runway surface.



Tap the **DONE** soft key to accept the changes.

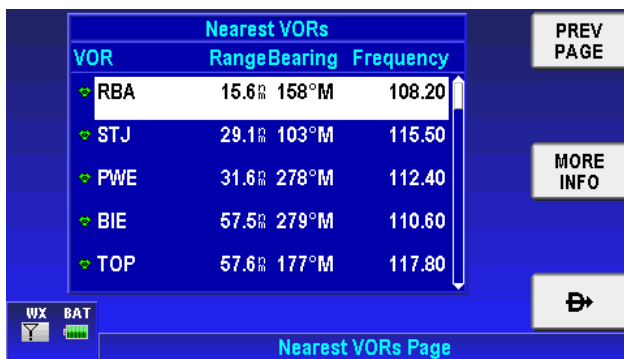
Only airports that match the filter conditions will now show in the Nearest Airports window.



When the user has selected (highlighted) the nearest point in the desired destination list, the user taps the  soft key. The system sets a new course from the aircraft's present position directly to the desired nearest point's position and shows the new Direct-To course on the map.

### Nearest VORs

Double tap on the **Nearest VORs** selection or tap once on the **Nearest VORs** selection and tap the **SELECT** soft key to show the Nearest VORs/DMEs.



Nearest VORs			
VOR	Range	Bearing	Frequency
RBA	15.6 NM	158°M	108.20
STJ	29.1 NM	103°M	115.50
PWE	31.6 NM	278°M	112.40
BIE	57.5 NM	279°M	110.60
TOP	57.6 NM	177°M	117.80

WX BAT


Nearest VORs Page

Figure 2-46: Nearest VORs

### Nearest VORs Soft Keys

Tap the **PREV PAGE** soft key to return to the Nearest Database Selection window.

Tap the **MORE INFO** soft key to display additional information about the highlighted VOR/DME from the list.

Tap the  soft key after selection of a VOR to set a new course from the aircraft's present position directly to the selected VOR. The new Direct-To course is displayed on the map.

### Nearest User Wpts

Double tap on the **Nearest User Wpts** selection or tap once on the **Nearest User Wpts** selection and tap the **SELECT** soft key to show the Nearest Towns and Cities.

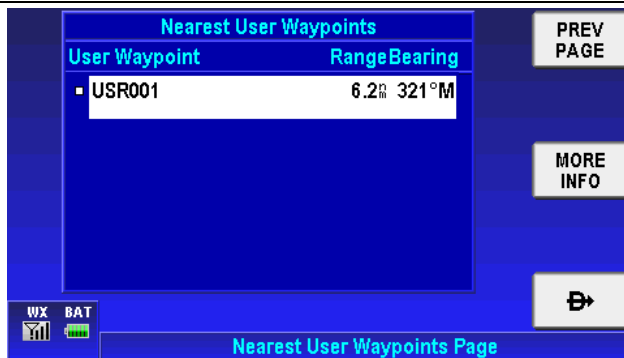



Figure 2-47: Nearest User Waypoints

## Nearest User Waypoints Soft Keys

Tap the **PREV PAGE** soft key to return to the Nearest Database Selection window.

Tap the **MORE INFO** soft key to display additional information about the highlighted user waypoint from the list.

Tap the  soft key after selection of a user waypoint to set a new course from the aircraft's present position directly to the selected user waypoint. The new Direct-To course is displayed on the map.

**NOTE:** User waypoints that have a VFR Airport, VOR, Town or City icon associated with them will also show in the Nearest Airports, Nearest VOR or Nearest Towns and Cities list as well as in the Nearest User Waypoints list.

## Nearest Towns and Cities

Double tap on the **Nearest Towns and Cities** selection or tap once on the **Nearest Towns and Cities** selection and tap the **SELECT** soft key to show the Nearest Towns and Cities.

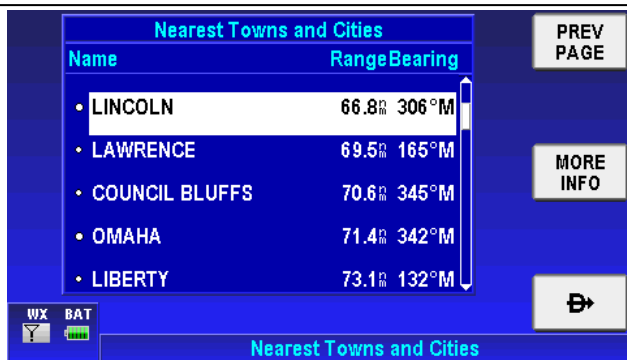



Figure 2-48: Nearest Towns and Cities

### Nearest Towns and Cities Soft Keys

Tap the **PREV PAGE** soft key to return to the Nearest Database Selection window.

Tap the **MORE INFO** soft key to display additional information about the highlighted town or city from the list.

Tap the  soft key after selection of a user waypoint to set a new course from the aircraft's present position directly to the selected town or city. The new Direct-To course is displayed on the map.

### WAYPOINT ALERT

The Waypoint Alert flashes the next desired track (**NEXT DTK**) when the estimated time to the next waypoint is about 20 seconds as shown in the figure below. Turning to establish the **NEXT DTK** will aid in intercepting the next leg of the flight plan.



Figure 2-49: Waypoint Alert

## TURN ANTICIPATION

When Turn Anticipation is enabled in Navigation Setup, it provides turn guidance to a new course to intercept the next leg of the flight plan.

Waypoint Alerting begins when the estimated time to the start of the turn is about 20 seconds. The Waypoint Alert is annunciated by flashing the next desired track (**NEXT DTK**) window as shown in the figure above.

When the computed turn point is reached **TURN TO** is displayed as shown in the figure below.



Figure 2-50: Turn Anticipation

The required bank angle to follow the arc will normally be between 3° and 25° depending on the aircraft speed and the amount of course change.

## DIRECT-TO NAVIGATION

Direct-To Navigation lets the user set a course line from his current position to any other position. Direct-To Navigation can be done with the methods that follow:

- Create a Direct-To course from the Map.
- Create a Direct-To course from the keyboard entry.
- Re-center the aircraft when Direct-To is already enabled
- Bypass a WPT with a flight plan active
- Enter a new WPT with a flight plan active.

### Create a Direct-To course from the Map

Pan and zoom in/out on the map to find the NAVAID point you want to set a course to. Tap on the NAVAID point to show its name, more detail information about the NAVAID point is shown by tapping the **MORE INFO** soft key, as shown in the figure below.



Figure 2-51: Map – Select a NAVAID


Tapping the **PTR MENU** soft key, on the right side of the screen, shows the  soft key.



Figure 2-52: Map – Direct To a NAVAID


Tapping the  soft key causes the system to create a new course from the aircraft's present position directly to the selected NAVAID point. The new course line is colored magenta.



Figure 2-53: Map – Navigate to a NAVAID point

### Create a Direct-To course from the keyboard entry (No Flight Plan)


Tap the  soft key from the Map page to display the virtual keyboard on the screen as shown in the figure below.



Figure 2-54: Map – Virtual Keyboard

Tap the **Esc** soft key to return to the Map page.

Tap the **Clear** soft key to clear the entry you typed in.

The user taps on the keyboard to enter the Ident, name or the location of the existing NAVAID point. The closest match to the entry shows on the page as you type in the data. If the closest match is correct, tap the **Enter** soft key to accept without having to finish typing the complete location.

After the **Enter** key is tapped, a **Waypoint Entry** screen shows detailed information about the entered location.



Figure 2-55: Map – Entered Waypoint Info

Tap the **CANCEL** soft key to cancel the Direct-To and return to the virtual keyboard page to enter a different location or to **Esc** back to the Map page.

Tap the **MORE INFO** soft key to see additional information about the location. If additional pages are available, the **NEXT INFO** soft key shows. When finished browsing the additional data, tap the **CLEAR** soft key to return to the WayPoint Entry Screen.

Tap the **OBS** soft key to start an **OBS** course and show the magnetic heading from your present position to the WPT



Tap the **DIRECT TO** soft key to accept the entered location. The system sets a new course from the aircraft's present position directly to the entered WPT's position and shows the new Direct-To course on the Map.

### Re-center aircraft when Direct-To is already enabled

When flying on a course using the Direct-To function, if the aircraft gets away from the course line on the map, the pilot can easily create a new course line to the destination from the aircraft's present position by using the steps that follow:


Tap the  soft key from the Map page to display the virtual keyboard. The active Direct-To destination will already be filled in on the keyboard.



Figure 2-56: Re-center aircraft – Step 1

Tap the Enter soft key to use the entered WPT and re-center the course line from the aircraft's present position to the destination.



## Bypass a WPT with a flight plan active

When a flight plan is active, the pilot may want to bypass one of the WPTs in the flight plan and go direct to one of the other WPTs. Use the steps that follow to bypass a WPT.

The active course shows as a magenta line on the Map.



Figure 2-57: Step 1 Bypass a WPT

Tap on the  soft key to display the **Active Flight Plan** page.



Figure 2-58: Bypass a WPT – Step 2

Highlight the WPT in the Active Flight Plan you want to go to next.

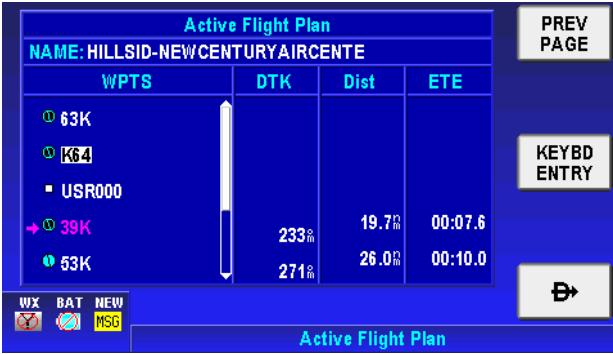


Figure 2-59: Bypass a WPT – Step 3


Tap on the  soft key to create a new course from the aircraft's present position to the selected WPT.



Figure 2-60: Bypass a Waypoint Step 4

**Enter a Direct-To WPT with a flight plan active.**

The active course shows as a magenta line on the Map.



Figure 2-61: Enter a New WPT with Flight Plan Active

Tap on the  soft key to display the **Active Flight Plan** page.



Figure 2-62: Enter New WPT – Select KEYBD Soft key

Tap on the **KEYBD ENTRY** soft key to display the virtual keyboard entry screen with the next WPT entry already entered.

Enter the new WPT you want to go direct to.



Figure 2-63: Enter New WPT Ident

Tap on the **Enter** soft key when done and then tap on the **OK** soft key to activate the Direct-To WPT. This will suspend the active flight plan and create a new course from the aircraft present position to the selected location. The new course shows in a magenta color.

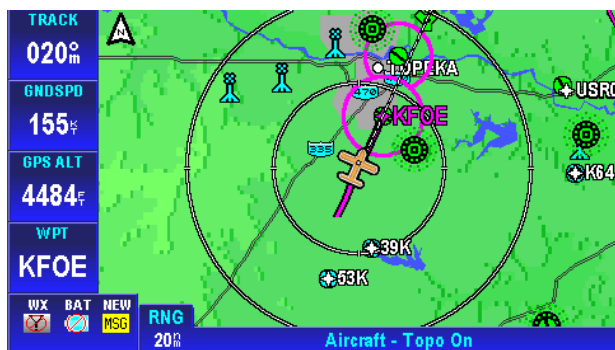


Figure 2-64: New Direct-To Active.

## PTR MENU

### Create a User Waypoint

When you tap a NAVAID point or any blank place on the map, the PTR MENU soft key is displayed. Tap the **PTR MENU** soft key to show the pointer menu.



Figure 2-65: Map –PTR MENU – Save Waypoint

Choose the Save Waypoint item, and tap the **SELECT** soft key, a user defined WPT is created at the point position on the map with the name USRXXX. Tap on the waypoint to show the User Waypoint popup window as shown in the figure below



Figure 2-66: Map – User Defined Waypoint

The User Waypoint popup window lists the waypoint ID and the date and time the waypoint was created.

Tap on the MORE INFO soft key to display additional information about the waypoint.

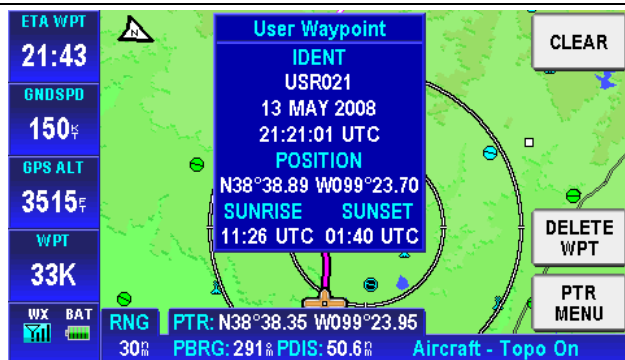


Figure 2-67: User Waypoint – MORE INFO

Tap the **DELETE WPT** soft key to delete the waypoint.

Tap the **CLEAR** soft key to return to the previous menu.

### Center the Map around Pointer Position

On the Map page, tap a point on the map to display the **PTR MENU** soft key.

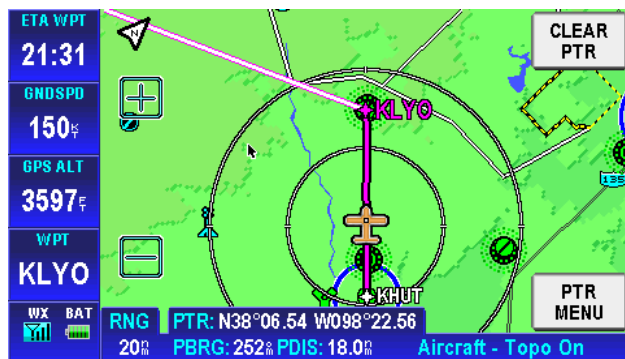


Figure 2-68: PTR Menu – Center to Map

Tap on the **PTR MENU** soft key to show the pointer menu.

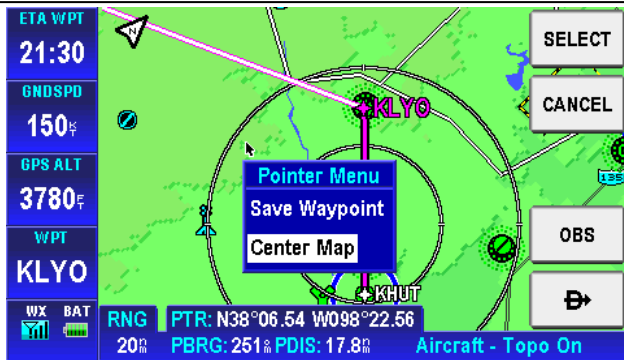


Figure 2-69: Pointer Menu

Choose the **Center Map** option and tap the **SELECT** soft key to center the position of the Map page on the pointer position.

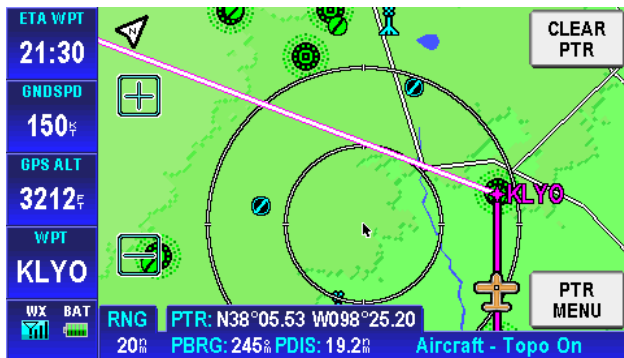


Figure 2-70: Map Centered on Pointer

## PTR MENU – DIRECT-TO NAVIGATION

The **DIRECT TO** shows the course to navigate the aircraft to the desired WPT directly when the WPT was selected from the pointer map mode screen. When the user moves the pointer arrow to any desired map location, the pointer's position (PTR), bearing (PBRG) and distance (PDIS) are shown on two lines at the bottom left of the

**PTR: N38°20.61 W096°11.49**  
**PBRG: 213 PDIS: 36.8**

screen

## To select a user defined point on the map:

If the user taps on a point on the map that is not a NAVAID pointer stored in database, taps on the **PTR MENU** soft key and then taps the **➔** soft key, a temporary WPT named USRXXX is created at the pointer position on the map and a new course from the aircrafts present position directly to the selected NAVAID point is created. The new course line is colored magenta.

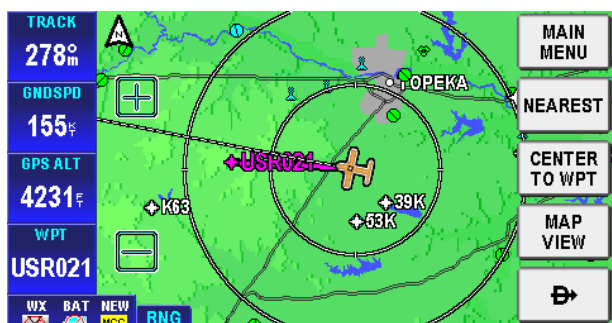


Figure 2-71: Map – Navigate to a user defined WPT

## PTR MENU – OBS NAVIGATION

### To select a NAVAID point on the map:

If the user touches a NAVAID point on the map and taps the **PTR MENU** soft key, the **OBS** soft key will be shown. After the **OBS** soft key is tapped, the OBS window shows the magnetic course to the NAVAID.



Figure 2-72: OBS Course to NAVAID



### To select a user defined point on the map:

If the point the user touches is not a NAVAID point, then after the **OBS** soft key is tapped, a temporary WPT is created at that position. The OBS course ends at that user defined temporary WPT.

To edit the OBS Course Angle, double tap on the OBS Course Window to open a key pad.

After the OBS point is selected the OBS course selection window is shown and the **DONE**, **→** and **CANCEL OBS** soft keys are displayed, as shown in the figure below.



Figure 2-73: Map –OBS Start

Tap the **DONE** soft key and the adjusted OBS course is activated and a course is generated to the selected point, as shown in the figure below.



Figure 2-74: Map – OBS Navigation

Tap the **OBS ADJUST** soft key to show the following window.



Figure 2-75: Map – OBS Configuration

Here double tapping on the OBS Course window allows the user to adjust the OBS course.

The user can fly an OBS course to any selected point even while flying an active flight plan. This provides the ability to show an extended runway centerline for any airport or user selected point of interest.

Cancel the OBS using the  or **CANCEL OBS** soft keys.

## CENTER MAP

In pointer map mode (User taps on the map and a black pointer is shown and the **PTR MENU** soft key is tapped), the **CENTER MAP** soft key is shown as an option on the **Pointer Menu**. Refer to Figure 2-69.

The **CENTER MAP** option is tapped to center the map on the PTR position on the map.

Tap on the **CLEAR PTR** to return clear the PTR position and center the aircraft on the map. The PTR position will remain centered on the Map for a period of time and then the Map page changes to show the aircraft position centered on the Map.

## Center To WPT/Center Aircraft

After any kind of navigation was activated, in Non-Pointer mode, the **CENTER TO WPT** soft key is shown for the user to view the WPT position on the map.

The **CENTER TO WPT** soft key changes to a **CENTER AIRCRAFT** soft key after the **CENTER TO WPT** soft key is tapped.

The **CENTER AIRCRAFT** soft key is shown for the user to show the aircraft's present position on the map.



Figure 2-76: Map – Center to WPT

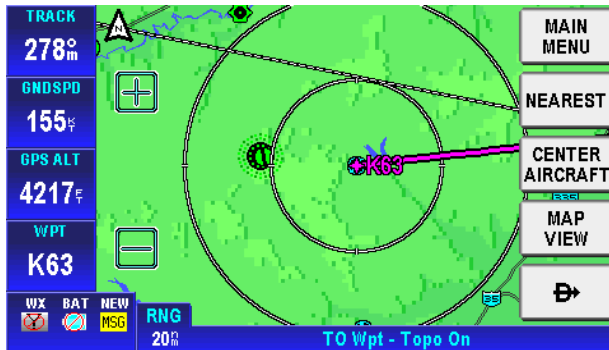


Figure 2-77: Map – Center Aircraft

### Selectable GPS Data Source

The AV8OR system can receive data from either the internal or an external GPS Source. When an external source is configured, the unit uses data from it. Switching to the internal GPS source is automatic when data from the external source is no longer valid or available.

## AUTONAV

AutoNav allows the AV8OR to automatically switch between the external and internal GPS sources when there is more than one source. AutoNav is enabled in the Navigation Setup Page. See the Navigation Setup section on page 2-153 for setup instructions.

The AutoNav function is not enabled until both the internal and the external position source have acquired a valid satellite fix or the Go Fly program has been running for 4 minutes.

If the external position source is invalid for more than 5 seconds, the Go Fly program will switch to the internal GPS antenna.

The following sequence of events occurs:

- If the flight plan source is the external GPS, then the flight plan is captured and cross-referenced to the internal database.
- The following warning message is displayed that requires pilot confirmation.
- "The external GPS source is no longer available. The GPS source has been changed to the internal GPS backup. GPS limited to VFR use only. PRESS OK TO ACKNOWLEDGE".
- Touching the OK soft key closes the message window.
- If the external GPS source becomes valid again for a period of more than 5 seconds, the AutoNav function automatically switches back to the external GPS source.
- The following warning message window is displayed that requires pilot confirmation.
- "The external GPS source is now available. The GPS source has been changed to the external GPS source. PRESS OK TO ACKNOWLEDGE".
- Tapping the OK soft key closes the message window.


## STOP WATCH




Figure 2-78: Stop Watch Data Field

The stopwatch can be started or stopped only when the data window shows on the Map screen.



When the stopwatch is stopped, double tap the  icon to start the timer.

When the stopwatch is running, double tap the  icon to stop

the timer. Double tap the  icon to reset it.

When the stopwatch is active, it continues to count even if the stopwatch data window is not being displayed.


## FLIGHT PLAN FUNCTION

VFR flight plans can be created in the AV8OR when configured to use the internal GPS.

Flight plans can also be created on a PC with the Jeppesen FliteStar® PC application. Refer to the Chapter 7 APPENDIX section on page 6-1, for more information on how to import a flight plan.

The **FLIGHT PLAN** function is selected through the Aviation **Main Menu**, as shown in



Figure 2-7. Tap on the  icon to open the Flight Plans Index page.

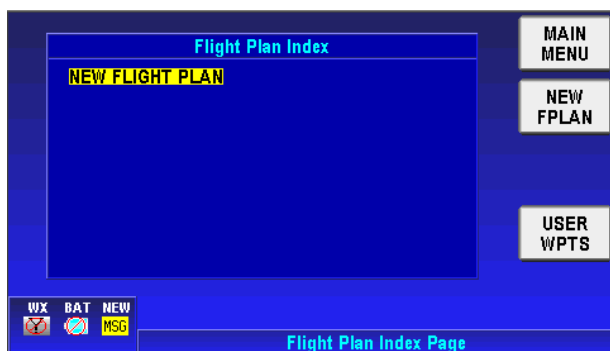


Figure 2-79: Flight Plan Index Page

Two options are available from the Initial Page, **NEW FPLAN** and **USER WPTS**.

### User WPTS

Tapping the **USER WPTS** soft key shows the current User defined WPTs list. Refer to Figure 2-80.



Figure 2-80: Flight Plan – User Waypoint List

The user can tap the **NEW WPT** soft key to define a new WPT. A maximum of 1000 user WPTs can be created.

The user can also tap the **EDIT WPT** soft key to edit the selected WPT's parameters. When the user creates a new WPT or edits an existing WPT, the User Waypoint Edit page is displayed as shown in the figure below.



Figure 2-81: Flight Plan – New/Edit User Waypoint

The AV8OR system creates a default: Ident name, Icon, Position, Comment 1 and Comment 2 parameters for the new WPT. The default Ident name is in the format USRXXX and the default position is the current aircraft's position.

In the User Waypoint Edit page the user can edit all these parameters. Highlight the Ident item, and the **CLEAR IDENT** soft key becomes available to clear the current Ident name. Highlight the Comment 1 / Comment 2 items and the **CLEAR TEXT** soft key becomes available to clear the comment text.

Tap the **RNG&BRG** soft key to display the range and bearing configuration page.

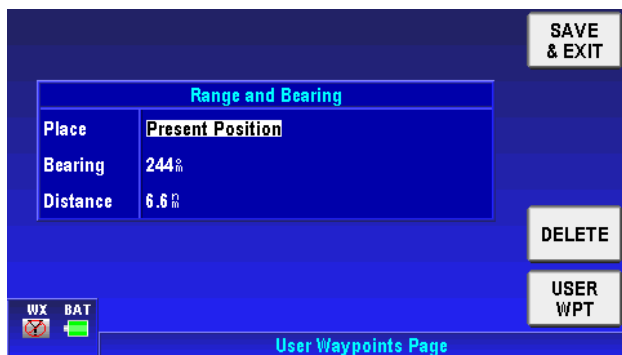


Figure 2-82: Flight Plan – WPT Range and Bearing Config

In the Range and Bearing page the **DELETE** soft key allows the user to delete this WPT. The **SAVE&EXIT** soft key saves all WPT configurations and exits to the User Waypoint List page (*Note: If the user entered the User Waypoint Edit page from the VFR moving map page, then this screen will return to the VFR moving map page.*) Tap the **USER WPT** soft key to return to the User Waypoint Edit page.

## USER WAYPOINT ICONS

Double tap on the Icon to display the Select use waypoint icon popup box.



Figure 2-83: Select User Waypoint Icon



Use the scroll box to select the icon to use. Double tap on the icon or tap on the icon and tap the **SELECT** soft key to use the selected icon.

**NOTE:** If a VFR Airport, VOR, City or Town icon is selected, the waypoint will also show under the Nearest Airport, Nearest VOR, or Nearest Towns and Cities selections when searching the Nearest Database using the **NEAREST** soft key on the Map page.

### User Airport Entry

If a VFR Airport Icon is selected for the Icon field, a **NEXT** soft key is displayed on the screen as shown in the figure below.

User Waypoint Edit	
Ident	KS60
Icon	VFR Airport
Position	N38°35.37 W077°43.02
Comment 1	11 DEC 2007
Comment 2	23:00:23 MST

WX BAT

User Waypoints Page

SAVE & EXIT  
NEXT  
DELETE  
RNG & BRG

Figure 2-84: User Airport Entry Page 1

Tap on the **NEXT** soft key to show the User Airport Edit page 2 as shown in the figure below.

User Airport Edit 2 of 2		
Ident	KS60	Icon
Position	N38°35.37 W077°43.02	
Runway Information		
Runway	02/20	Length 0 F
Surface	Hard	Elev 0 F
Comm Frequencies		
Comm 1	Type CTAF	Freq 122.800 MHz
Comm 2	Type N/A	Freq ---.--- MHz

WX BAT

User Waypoints Page

SAVE & EXIT  
PREV  
DELETE

Figure 2-85: User Airport Entry Page 2

On page 2, runway information and communication frequencies can be set up for the airport.

The Runway Information section includes data fields for the runway alignment, length, surface and elevation. The Comm Frequencies section includes data fields for two different frequencies and frequency types.

Tap **SAVE & EXIT** to return to the User Waypoints Page.

## Creating New Flight Plan using the Virtual Keyboard

A maximum of 100 flight plans can be stored in the AV8OR. Each flight plan can contain up to 99 WPTs. To create a new flight plan, perform the following steps.



Tap the **Flight Plan** soft key on the Aviation Main Menu Page to show the Flight Plan Index page. Initially, when no flight plans have been stored, a blank screen is displayed, as shown in the figure below.

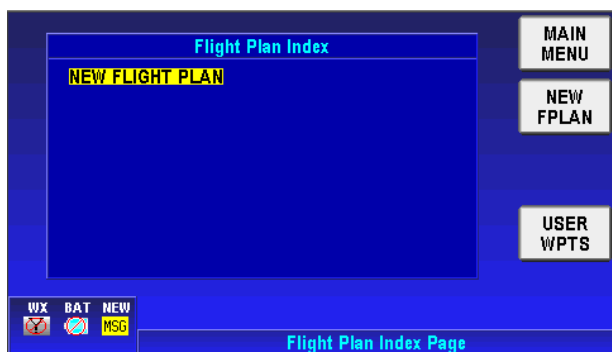


Figure 2-86: Flight Plan – Index Page with no Flight Plan

The **NEW FLIGHT PLAN** line is highlighted. Tap on the **NEW FPLAN** soft key to show the New Flight Plan page. In this page, you can enter a WPT using the keyboard.

New Flight Plan			
NAME:			
WPTS	DTK	Dist	ETE
-----			

WX BAT

MAP VIEW

New Flight Plan

Figure 2-87: New Flight Plan Page

Tap on the **INSERT** soft key to display the virtual keyboard to page to enter WPTs.



Figure 2-88: Virtual Keyboard

Enter the Ident, name, User Waypoint or location of the first location on the flight plan.



Figure 2-89: Enter Waypoint Identifier

Tap on **Esc** soft key to cancel the entry.

Tap on the **Clear** soft key to clear the entry and start over.

Tap the **Enter** soft key when complete to show the Waypoint Entry window.



Figure 2-90: Waypoint Entry Window

Tap the **MORE INFO** soft key to view additional data about the WPT. The **NEXT** soft key will show if additional pages are available. When finished, tap the **CLEAR** soft key to return to the Waypoint Entry page.

If the WPT is not correct, tap on the **CANCEL** soft key to return to the virtual keyboard page.

If the correct WPT is shown, tap on the **OK** soft key to save the first WPT on the flight plan.

Tap on the **INSERT** soft key to add additional WPTs to the flight plan and do the same steps as shown in the figure above to accept each WPT until all the WPTs are entered.



Figure 2-91: All WPTs Entered into Flight Plan

Tap on the **SAVE & EXIT** soft key to save the flight plan. The flight plan now displays on the **Flight Plan Index** page.

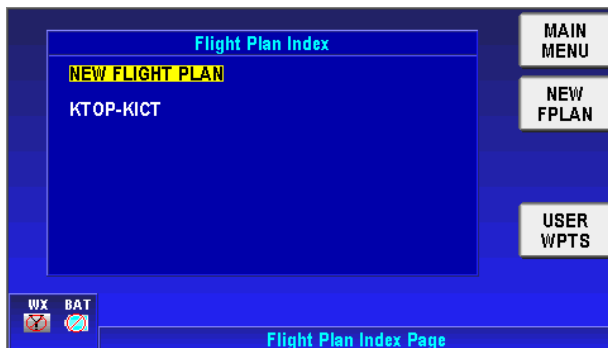


Figure 2-92: Flight Plan Saved

## Inserting Victor Airways into Flight Plan

1. Victor Airways can be inserted into any flight plan as it is created or into a stored Flight Plan when it is edited.
2. Highlight the waypoint where the Victor airway is to be inserted above.
3. Tap the **Insert** soft key.

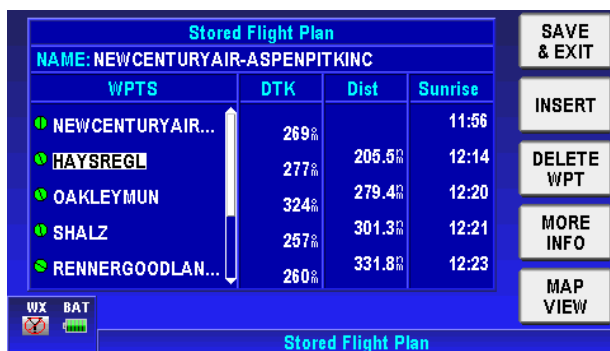


Figure 2-93: Stored Flight Plan

4. Using the virtual keyboard enter the name of the victor airway.



Figure 2-94: Stored Plan

5. Highlight the segment to use and then tap **Select Segment**.



Figure 2-95: Select Airway Segment

- Using the scrolling arrows select the entry and exit points for the airway and then tap **OK**.

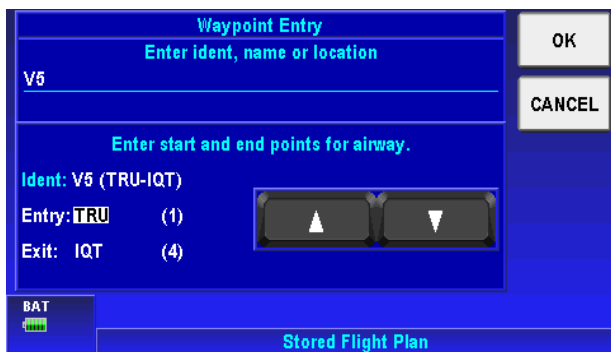


Figure 2-96: Select Entry and Exit Points

- The flight plan will be modified with all of the waypoints between the entry and exit points as shown in the figure below.

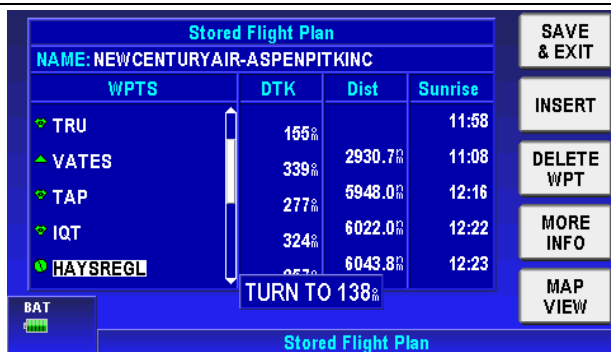


Figure 2-97: Updated Flight Plan with Victor Airway

## SMART AIRWAYS

Victor Airways can also be entered into a flight plan in the same way that clearances are requested or issued by approach control.

In order to add an airway to your flight plan:

Press the **INSERT** soft key while on the flight plan edit page.

Enter the Entry Point, Airway Name and Exit Point in a single line. In the example below, the flight plan is from Hutchinson Kansas to Tucumcari, New Mexico, U.S.A. The correct entry for this would be "ICT V12 TCC".



Figure 2-98: Smart Airways Entry Screen

After tapping the **Enter** soft key, the following screen shows:





Figure 2-99: Smart Airways - Segment Details

The screen shows the Airway selected and the entry and exit points.

Tap the **OK** soft key to accept the routing.

Tap the **SELECT LIST** soft key after highlighting either the Entry or Exit data field to change to a different Entry or Exit point.

A popup list displays the selections available for that segment of the airway.

Use the scroll bar to find the new entry or exit point and tap on the field to highlight it. Then tap on the **SELECT** soft key to accept the new Entry or Exit waypoint. Tap the **CANCEL** soft key to cancel selection of a new Entry or Exit data field.



Tap the **CANCEL** soft key to cancel this airway entry.

Tap the **KEYBD EDIT** soft key to reenter the Airway segments.

## Creating New Flight Plan using MAP Selections



Tap the **Flight Plan** soft key on the Aviation **Main Menu Page** to show the Flight Plan Index page.

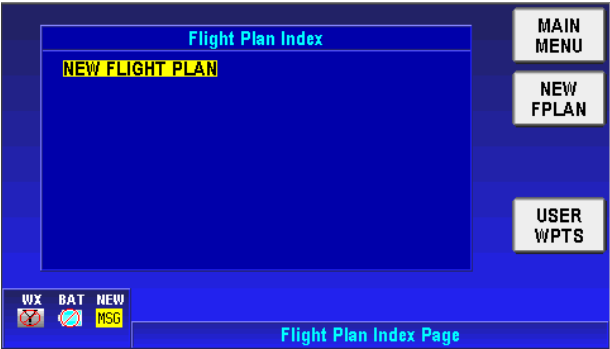


Figure 2-100: Flight Plan Index

The **NEW FLIGHT PLAN** line is highlighted. Tap on the **NEW FPLAN** soft key to show the **New Flight Plan** page, as shown in the figure below.



Figure 2-101: New Flight Plan Page

Tap on the **MAP VIEW** soft key to show a map to select WPTs from. In this page, you can select the waypoint on the map using the cursor. When you tap a waypoint on the map, the name of the waypoint is shown in a pop-up window.



Figure 2-102: Flight Plan – Map Selection of WPTs

Use your finger or stylus to pan the map to the first WPT you want to enter into the flight plan. Use the Zoom In and Zoom out icons to make it easier to pan the screen.

Tap on the WPT to show the name and identifier.



Figure 2-103: Flight Plan – Waypoint Detail

To view detailed information about this point, tap the **MORE INFO** soft key on the right of the page. The selected WPT detailed information is displayed, as shown in the figure below.



Figure 2-104: Flight Plan – Selected Waypoint Detail Information

Tap the **CLEAR** soft key to close the WPT detailed information window.

After you select a WPT, tap the **INSERT WPT** soft key to insert that WPT into the new Flight Plan. The first WPT is displayed in the Flight Plan, as shown in the figure below.



Figure 2-105: Flight Plan – Stored Flight Plan with a Waypoint

Use the **INSERT WPT** soft key to continue inserting WPTs until the Flight Plan is complete. Tap the **CLEAR PTR** soft key to show the **SAVE&EXIT** soft key, as shown in the figure below.



Figure 2-106: Flight Plan – Save Waypoint

Tap the **SAVE & EXIT** soft key to save the selected WPTs, exit from the Stored Flight Plan page and return to the Flight Plan Index page. The name of the flight plan is displayed in the Flight Plan Index page, as shown in the figure below.

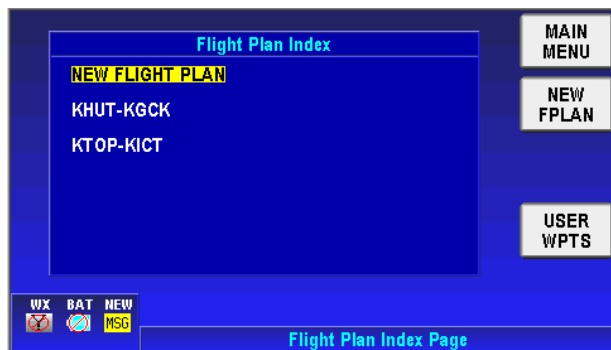


Figure 2-107: Flight Plan – Flight Plan Accepted

If you want to create another new Flight Plan, repeat the previous steps.

## Stored Flight Plans Processing

Select an existing Flight Plan and **EDIT FPLAN**, **FPLAN ADMIN**, **USER WPTS** and **FLY FPLAN** soft keys are displayed on the right side of the page.

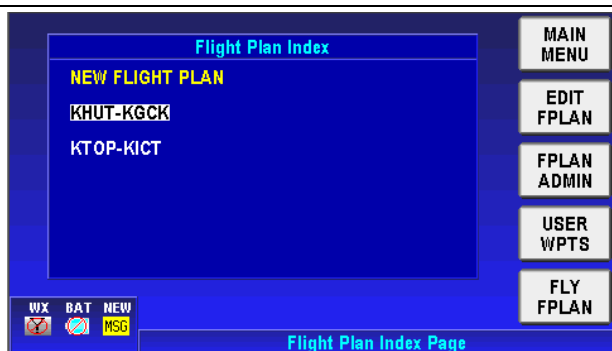


Figure 2-108: Flight Plan Index Page

## EDIT FPLAN

Tap the **EDIT FPLAN** soft key to enter the stored flight plan page in data view mode. Here the user can edit the flight plan using map view mode or data view mode. On the bottom right side of the page is the **MAP VIEW** switch soft key.

To change the title of the Flight Plan, tap on the flight plan NAME field. The keyboard window will open with the current name preloaded in the name field.

## DATA VIEW Mode

In data view mode, the flight plan WPTs are displayed in table format, including each WPT's detailed information. Highlight a WPT to delete it or to insert a new waypoint before it or highlight the dashed line to insert a new WPT at the end of the flight plan.



Figure 2-109: Flight Plan – DATA VIEW

Tap the **MAP VIEW** soft key to switch to map view mode.

## MAP VIEW Mode

In map view mode the user can select a WPT on the map, draw and move the map, tap on the map to insert a WPT. If the tap point is a current WPT in the flight plan the **DELETE WPT** soft key is shown to allow the user to delete it from the flight plan. If the tap point is not in the flight plan the **INSERT WPT** soft key is shown to allow the user to insert it into the flight plan.



Figure 2-110: Flight Plan Selected WPT from Map

When the user taps on one of the WPTs in the WPT list, the map moves to the selected WPT area. The user can also delete selected WPTs here. If the user taps on the dashed line the **INSERT** soft key is available to insert a WPT.

## FPLAN ADMIN

Tap the **FPLAN ADMIN** soft key and the corresponding function soft keys on the right side of the Flight Plan Index page are shown.

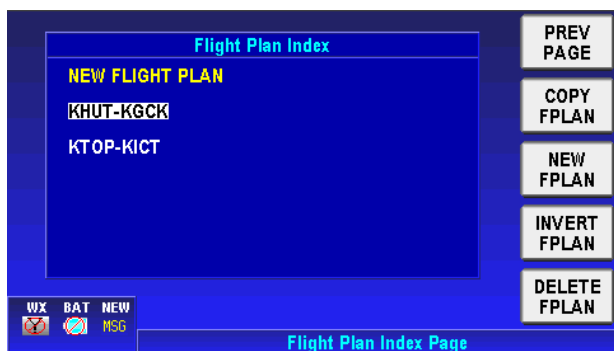


Figure 2-111: Flight Plan – FPLAN ADMIN

## COPY FPLAN

Highlight the flight plan you want to copy and then tap the **COPY FPLAN** soft key. This function permits the selected flight plan to be copied for editing while not changing the original one.

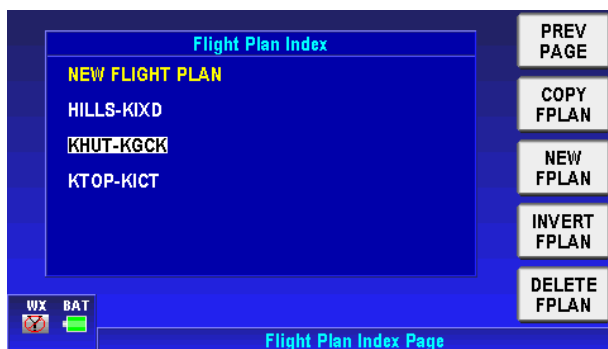


Figure 2-112: Flight Plan – COPY FPLAN

## NEW FPLAN

This function is the same as the one introduced before in the **CREATING NEW FLIGHT PLAN** section.

## INVERT FPLAN

This function reverses the selected flight plan's WPT sequence. This lets the pilot return from a destination to the same starting point without creating a new flight plan.

Highlight the flight plan that you wish to invert.

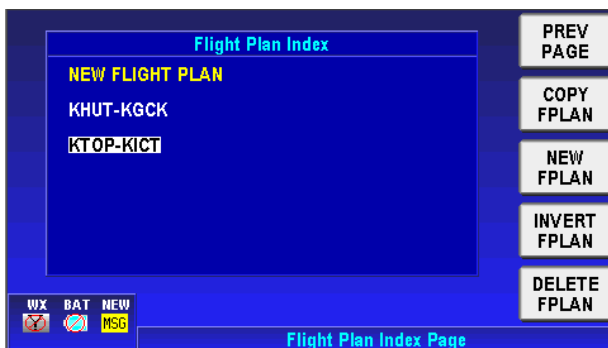


Figure 2-113: Invert Flight Plan – Step 1



Tap on the **INVERT FPLAN** soft key to show the flight plan with the WPTs inverted from the stored flight plan.



Figure 2-114: Invert Flight Plan – Step 2

Tap the **SAVE & EXIT** soft key to invert the flight plan. The flight plan now shows on the **Flight Plan Index Page** with the WPTs inverted.

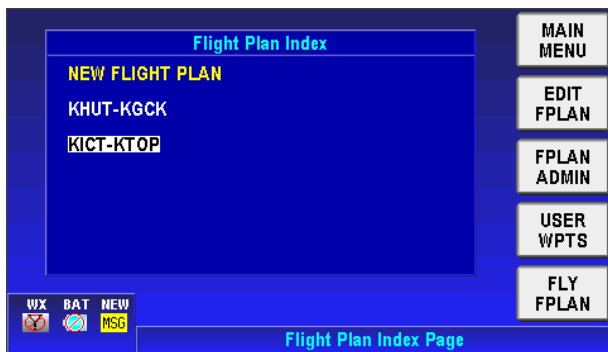


Figure 2-115: Invert Flight Plan – Step 3

## DELETE FPLAN

This function deletes the selected flight plan

Highlight the flight plan on the **Flight Plan Index Page** you want to delete, tap on the **FPLAN ADMIN** soft key and then tap on the **DELETE FPLAN** soft key.

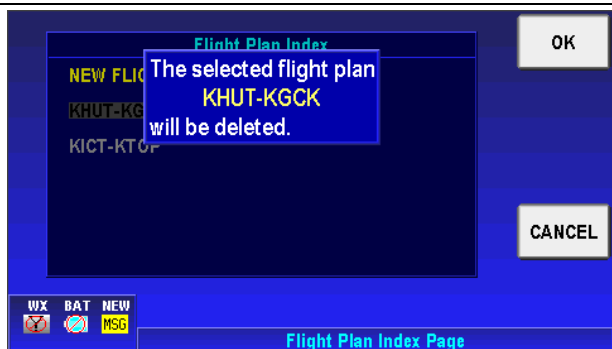


Figure 2-116: Delete Flight Plan

Tap **OK** to save all changes and return to the user Waypoints Page.

## FLY FPLAN

After creating/editing the Flight Plans you can highlight the desired one and activate it for navigation.

1. Highlight the desired Flight Plan.
2. Tap the **FLY FPLAN** soft key to display the message shown in Figure 2-117.

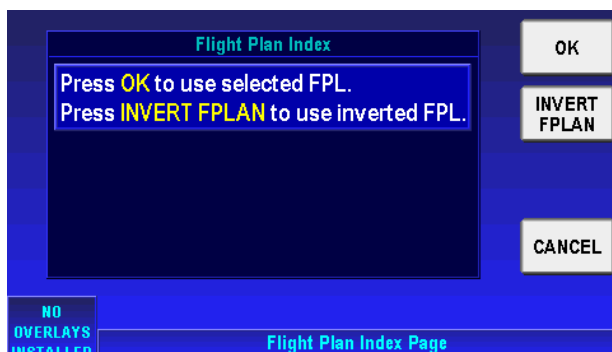


Figure 2-117: Flight Plan – FLY FPLAN

3. Push the **OK** soft key to use the selected flight plan. When desired, the selected flight plan is navigated in reverse by tapping the **INVERT FPLAN** soft key.
4. The Active Flight Plan page lists the current active Flight Plan's WPTs, as shown in the figure below. The WPT in magenta with the arrow pointing to it is the current WPT.



Figure 2-118: Flight Plan – Active Flight Plan

- After activating a flight plan the Map page is shown.

### Active Flight Plan

- Once a flight plan has been activated, tap the Flight Plans soft key from the Main Menu page and then tap the **STORED FPLANS** soft key to go to the Flight Plan Index page.
- The active flight plan is shown in magenta color.
- When the active flight plan is selected, tap the **FPLAN OFF** soft key to deactivate the flight plan. The flight plan course is removed from the map.

## Flight Logging

The Flight Logging mode records the aircrafts position, speed, altitude and direction at a user selected rate to a file. This lets the user play back the flight on a PC using flight planning software or Google Earth/Maps for evaluation of the flight.

The maximum duration of the flight log is dependent upon the logging rate. For text format and FliteStar data, a 1 second logging rate allows 70 minutes of data, a 5 second logging rate allows 5.5 hours, a 10 second logging rate allows 11 hours and a 99 second logging rate allows 4.5 days. The logging rate is set in the General System options of the System Setup section.

Flight logs are saved in the following format on the SD card.

- Text Format (Bendix/+King).
- FliteStar© Format.
- Google Format.
- Memory Map Format

Refer to the “Downloading/Uploading files from/To PC” section on page 6-4 for instructions on how to upload the flight logs to your PC.

The different file types are:

### TEXT FORMAT (BENDIX/KING) FLIGHT LOG

The flight log is stored as “Bendix King flight log.txt” and uses the following data format:

- Date
- Time
- Latitude
- Longitude
- Heading
- Altitude
- Course over Ground (COG) (Actual track)
- Speed over ground (SOG) (Ground speed)
- Traffic

Each file is stored in the directory: \Data\User\Flight Logs\Text Format.

## **JEPPESEN FLITESTAR FLIGHT LOG**

The flight log is stored as "FliteStar flight log.txt" and uses the following data format:

- Date
- Time
- Latitude
- Longitude
- Heading
- Ground Speed
- Altitude

Each file is stored in the directory: \Data\User\Flight Logs\FliteStar.

## **GOOGLE EARTH FLIGHT LOG**

The flight log is stored as "Google Earth flight log.kml".

The kml file is a file format that can be used to display the recorded flight using Google Earth.

When Google Earth is installed on your computer, launching the kml file will overlay your flight on Google Earth.


Each file is stored in the directory: \Data\User\Flight Logs\GoogleEarth.

## **MEMORY MAP FLIGHT LOG**

Each file is stored in the directory: \Data\User\Flight Logs\Memory Map.

## WEATHER FUNCTION



Tap the  soft key on the Aviation Main Menu page to enter the weather page.

### CAUTION

**Datalink weather information is to be used as a strategic planning tool for pilot decisions on avoiding inclement weather areas that are beyond visual range or where poor visibility precludes visual acquisition of inclement weather.**

**Datalink weather information may be used as follows:**

- **To aid the pilot in situational awareness of hazardous meteorological conditions.**
- **As a cue to the pilot to communicate with the ATC controller or AFSS specialist to get further information about the current meteorological conditions. In no case should the pilot take any evasive action based solely upon the datalink weather display.**

**The datalink weather information is intended for assistance in strategic flight planning purposes only and lacks sufficient resolution and updating necessary for tactical maneuvering.**

## Hardware Accessory

The AV8OR unit will work with either the WxWorx REWX91D XM receiver or the certified KDR 610 XM receiver. See the Device Setup Section on page 2-161 for more information on how to configure the XM weather receiver. See the XM Tuner section on page 4-6 for information on how to activate the XM receiver.

The XM Weather receiver is used to receive the weather information which is then displayed on the screen.

**NOTE:** In order to use this feature, the user must purchase and activate a subscription from XM Satellite Radio (XM)

## Receiving Weather Data

The AV8OR system connects with the WxWorx REWX91D XM receiver through the Bluetooth interface or either of the XM receivers

through the serial (RS 232) interface to receive weather data from the XM Satellite Radio network.

The following XM weather products are supported by the AV8OR:

- **NEXRAD** (Next-Generation Radar) - USA and Canada
- **TAFs** (Terminal Area Forecast) - USA and Canada
- **METARs** (Meteorological Aviation Report) - USA and Canada
- **AIRMETs** (Airmen's Meteorological Information) - USA
- **SIGMETs** (Significant Meteorological Information) - USA
- Convective SIGMETs - USA
- Winds Aloft – USA
- Freezing Level
- **PIREPs** (Pilot Report) – USA

The following XM weather overlays and other services are supported by the AV8OR and are only available for the USA:

- Severe Wx Storm Tracking (Storm Cells)
- Lightning Overlay
- TFR Overlay
- Satellite Mosaic (Cloud Tops) Overlay
- Precipitation Type Overlay

Until current XM data has been received from the XM receiver, a caution message will be displayed on the weather page as shown in the figure below. Assuming good signal strength a complete set of XM weather data will be received every 12 minutes. The initial data displayed is dependent upon where in that 12 minute cycle the data was received.

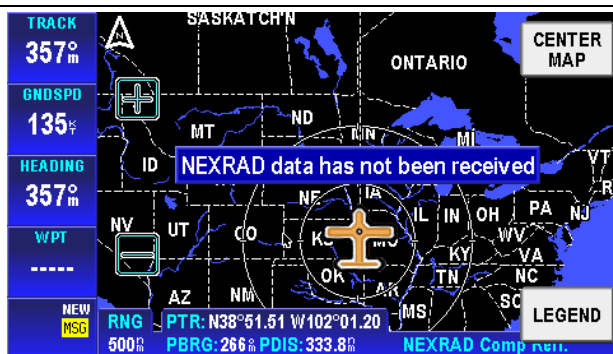


Figure 2-119: WX – No Data Received

## XM Weather Information Products

Once data has been received from the XM Receiver, the **CHOOSE PRODUCT** soft key is available to select the desired weather information products.

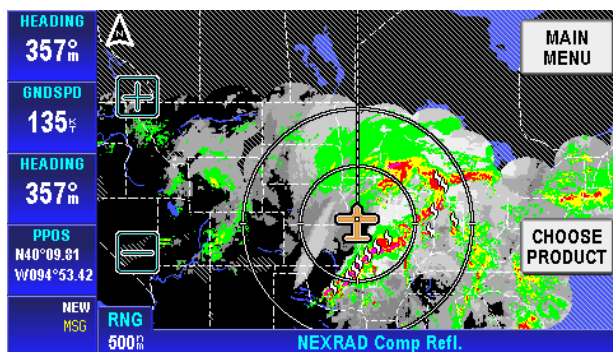


Figure 2-120: WX – Non-pointer mode

Tap an available product to highlight it and then tap the **SELECT** soft key to complete the product selection.



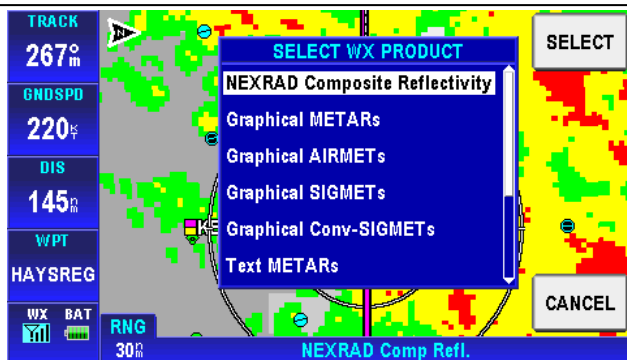


Figure 2-121: WX – Choose Product

The AV8OR shows the selected product on the weather page:

The following selections are available from the SELECT WX PRODUCT menu:

- NEXRAD Composite Reflectivity (USA and Canada)
- Graphical METARs (USA and Canada)
- Graphical PIREPs (USA only)
- Graphical AIRMETs (USA only)
- Graphical SIGMETs (USA only)
- Graphical Conv-SIGMETs (USA only)
- Graphical Winds Aloft (USA only)
- Text METARs (USA and Canada)
- Text TAFs (USA and Canada)
- Text PIREPs (USA only)
- Text AIRMETs (USA only)
- Text SIGMETs (USA only)
- Text Conv-SIGMETs (USA only)

## NEXRAD COMPOSITE REFLECTIVITY (USA AND CANADA)

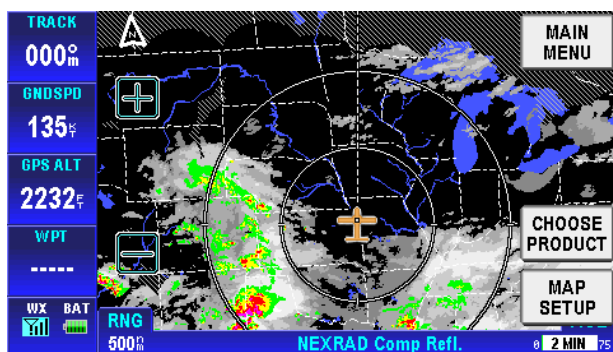


Figure 2-122: WX – NEXRAD with Cloud and Coverage Overlay

The NEXRAD Composite Reflectivity page can show different products overlaid on the map if configured. The available overlays are: Flight Plan, Traffic, Flight Log Trail, METAR, TFR, Lightning, NEXRAD coverage, Cloud Top and Storm Cell.

All of these products may not be initially available when the XM Weather receiver is first turned on. Assuming good signal strength a complete set of XM weather data will be received every 12 minutes, therefore, the initial data displayed will be dependent upon where in that 12 minute cycle the data was received.

### NEXRAD Legend

Tap on the Map to show the **LEGEND** soft key. Tap the LEGEND soft key to show the NEXRAD Legend window on the page.

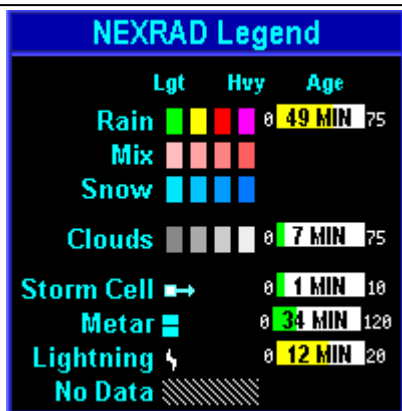


Figure 2-123: NEXRAD Legend

### NEXRAD Map Setup

The user can select which of these overlays are displayed by configuring the weather overlays on the “WX NEXRAD Map – Overlay Setup” page. This can be accessed by tapping the **MAP SETUP** soft key and using the **NEXT** soft key to navigate to the WX NEXRAD Map - Overlay Setup page as shown in the figure below.

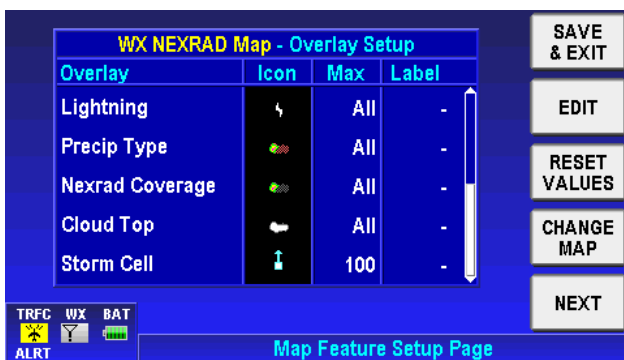


Figure 2-124: WX NEXRAD Map – Overlay Setup

The following image shows storm cells, lightning, METARs and NEXRAD coverage overlaid on the map.

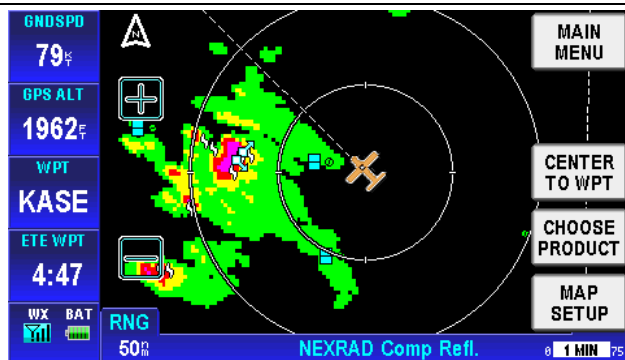


Figure 2-125: WX – NEXRAD & Storm Cells Overlay

The following image shows TFRs, Cloud Cover and METARS overlaid on the map.

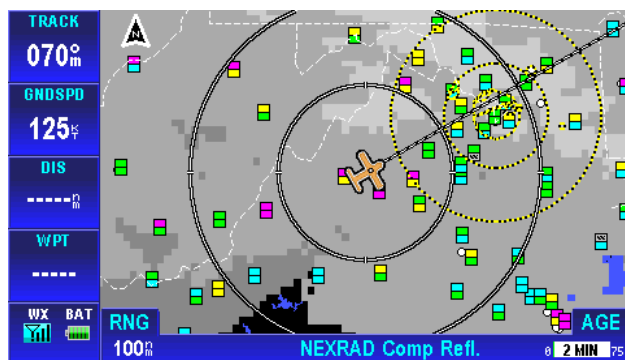


Figure 2-126: Graphical TFRs

TFR boundaries show as a yellow and black dashed line.

Tap on the TFR boundary to show the TFR popup window.

The TFR popup window contains the vertical height of the TFR and age as shown in the figure below.

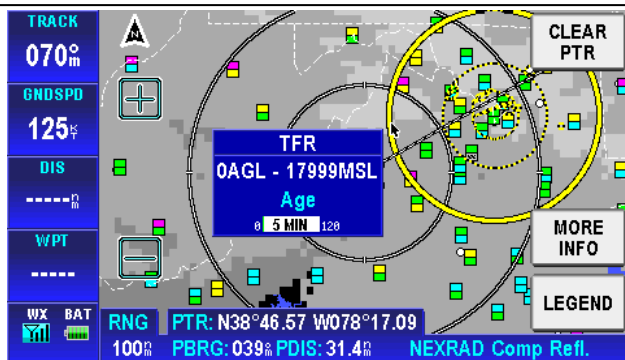


Figure 2-127: TFR Popup Window

Tap on the **MORE INFO** soft key to show the Temporary Flight Restriction popup screen. The popup screen shows the NOTAM ID, Type, Altitude Restrictions, Date modified, Status and Expiration date, if available.

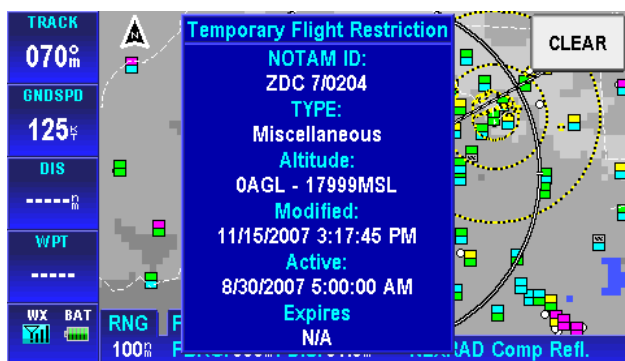



Figure 2-128: TFR MORE INFO Window

Tap on the **CLEAR** soft key to return to the previous page.

## GRAPHICAL METARS (USA AND CANADA)

Tap on the **CHOOSE PRODUCT** soft key on the Weather Main page and select Graphical METARs from the SELECT WX PRODUCT box.

The graphical METAR page can also show overlays on the map if configured. The available overlays are: Flight Plan, Traffic and Flight Log Trail. Refer to the Map Setup section on page 2-148 for more information on how to configure the overlays

Graphical METAR icons show as a rectangular box on the map . The colors on the box indicate the type of meteorological conditions

VFR
MVFR
IFR
LIFR
AGED

that currently exist at the location

The graphical METAR is derived from the most currently received textual METAR or SPECI data from reporting sites. The METARS are displayed on a map background to enhance situational awareness as shown in the figure below.

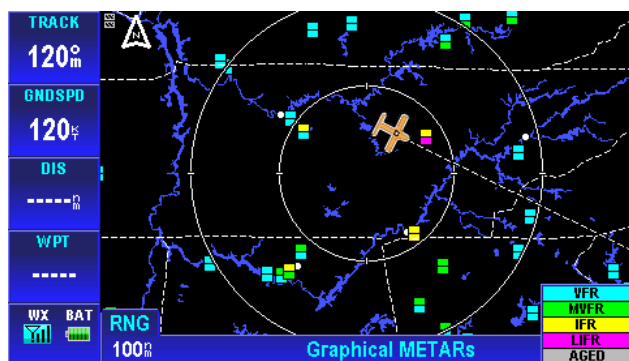


Figure 2-129: WX – Graphical METARs

### CAUTION

Graphical METAR data must be used for strategic planning purposes only. Due to inherent delays, areas of coverage and relative age and availability of the data that can be experienced, Graphical METAR data cannot be viewed as an absolute depiction of conditions at a specific location.

Tapping on a METAR icon brings up a data box that shows the airport and age of the METAR.

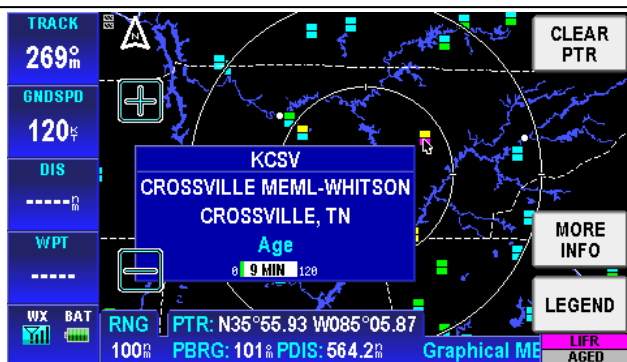


Figure 2-130: WX – Graphical METARs Data Box

Tap on the **MORE INFO** soft key to display the text METARs page. The details of the METAR are translated into easy to understand text.

See the Text METARs (USA and Canada) section for more information on Text METARS.

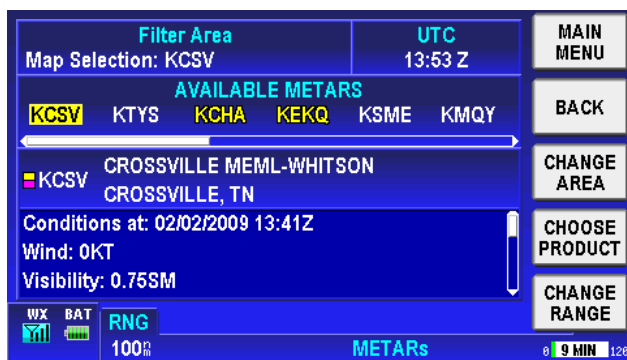



Figure 2-131: WX – Text METARs Page

## GRAPHICAL PIREPS (USA ONLY)

Tap on the **CHOOSE PRODUCT** soft key on the Weather Main page and select Graphical PIREPs from the SELECT WX PRODUCT box. The graphical PIREPs page can also show overlays on the map if configured. The available overlays are: Flight Plan, Traffic and Flight

Log Trail. Refer to the Map Setup section on page 2-148 for more information on how to configure the overlays

The graphical PIREPs is derived from the location description in the textual PIREPs and displayed as a blue circle with a diagonal line intersecting the circle . The boundaries are displayed on a map background to enhance situational awareness as shown in the figure below.

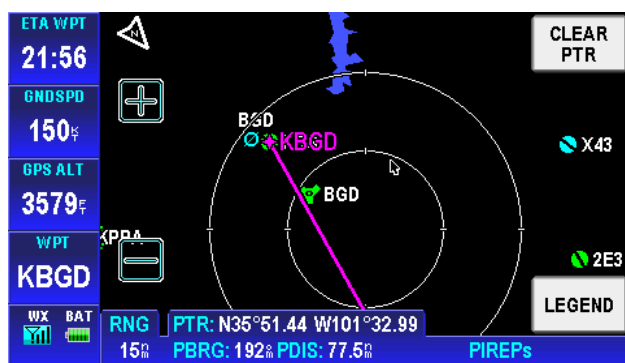


Figure 2-132: WX – Graphical PIREPs

Tap on a graphical PIREP to show the PIREPs popup window.

The PIREPs popup window contains the PIREP name, type, intensity and age as shown in the figure below.

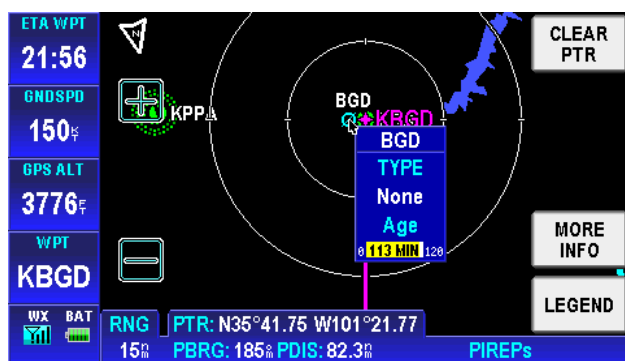


Figure 2-133: WX – Graphical PIREPs Popup Window



Tap on the **LEGEND** soft key to display the Graphical PIREP Legend Window.

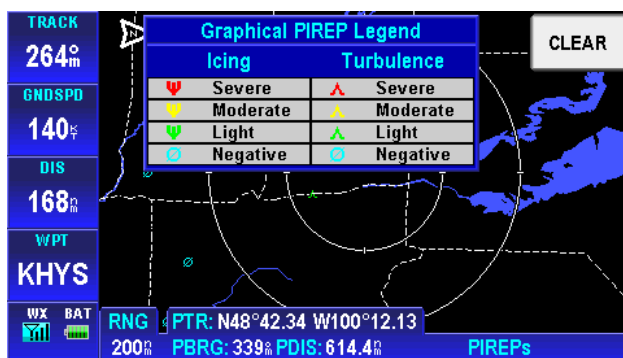


Figure 2-134: WX – Graphical PIREPs Legend

Tap on the **MORE INFO** soft key to display the text PIREP page.

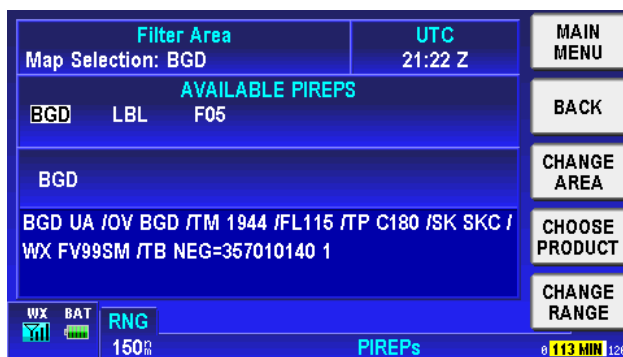


Figure 2-135: WX – Text PIREPs

## GRAPHICAL AIRMETS (USA ONLY)

Tap on the **CHOOSE PRODUCT** soft key on the Weather Main page and select Graphical AIRMETs from the SELECT WX PRODUCT box.

The graphical AIRMET is derived from the location description (if provided) in the textual AIRMET and displayed as a boundary box

with the appropriate color for the condition as shown in the legend. The boundaries are displayed on a map background to enhance situational awareness as shown in the figure below.

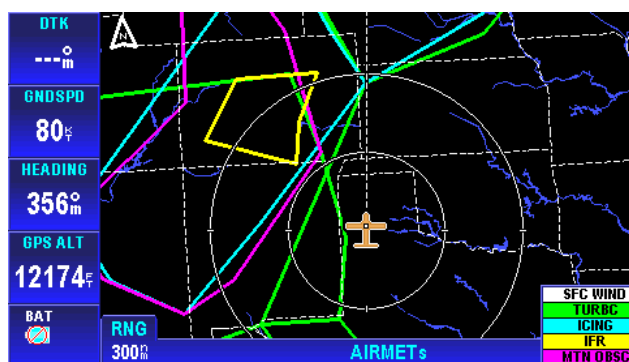


Figure 2-136: WX – AIRMETs

The graphical AIRMET types are shown in the following table

Table 2-6 Graphical AIRMET Types

AIRMET TYPE	PRIORITY	COLOR
IFR	1 (Highest)	Yellow
Mountain Obscuration	2	Magenta
Icing	3	Cyan
Turbulence	4	Green
Surface Winds	5 (Lowest)	White

Tap on a graphical AIRMET to show the AIRMET popup window.

The AIRMET popup window contains the AIRMET name, type and age as shown in the figure below.

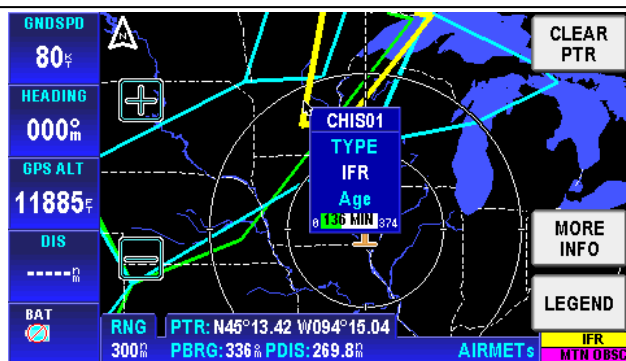


Figure 2-137:WX – Graphical AIRMET Popup Window

Tap on the **LEGEND** soft key to display the AIRMET Legend Window.

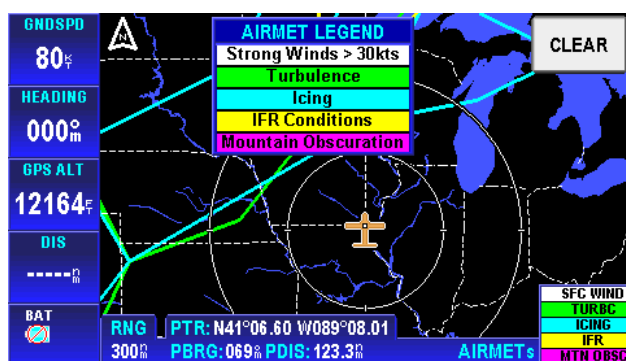


Figure 2-138:WX: – Graphical AIRMET LEGEND

Tap on the **MORE INFO** soft key to display the text AIRMET page.



Figure 2-139: WX – Text AIRMET Page

## GRAPHICAL SIGMETs (USA ONLY)

Tap on the **CHOOSE PRODUCT** soft key on the Weather Main page and select Graphical SIGMETs from the SELECT WX PRODUCT box.

The graphical SIGMET is derived from the location description in the textual SIGMET and displayed as a boundary box with the appropriate color for the condition as shown in the legend. The boundaries are displayed on a map background to enhance situational awareness as shown in the figure below.

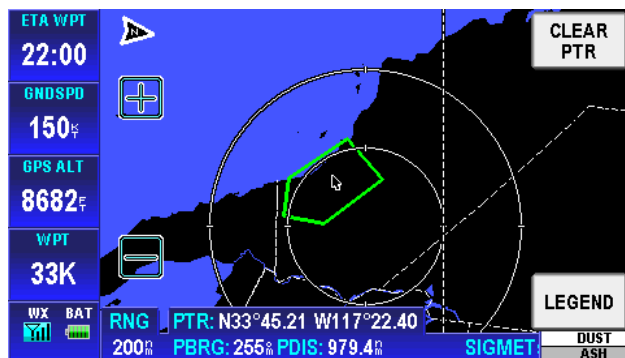


Figure 2-140: WX – Graphical SIGMETs

Tap on a graphical SIGMET to show the SIGMET popup window. The SIGMET popup window contains the SIGMET name, type and age as shown in the figure below.

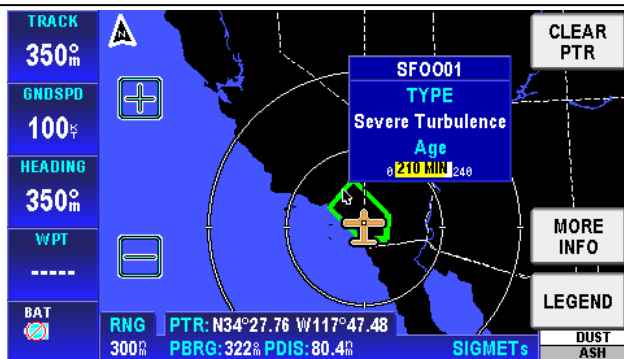


Figure 2-141: WX – Graphical SIGMET Popup Window

Tap on the **LEGEND** soft key to display the SIGMET Legend Window.

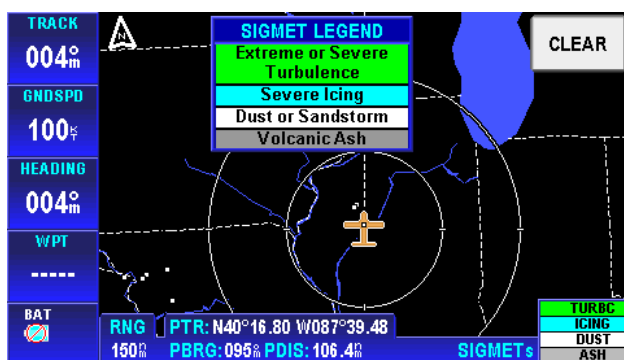


Figure 2-142: WX – Graphical SIGMET Legend

Tap on the **MORE INFO** soft key to display the text SIGMET page.



Figure 2-143: WX – Text SIGMETs

## GRAPHICAL CONV-SIGMETs (USA ONLY)

Tap on the **CHOOSE PRODUCT** soft key on the Weather Main page and select Graphical Conv-SIGMETs from the SELECT WX PRODUCT box.

The graphical Convective SIGMET is derived from the location description in the textual Convective SIGMET and displayed as a yellow boundary box. The boundaries are displayed on a map background to enhance situational awareness as shown in the figure below.

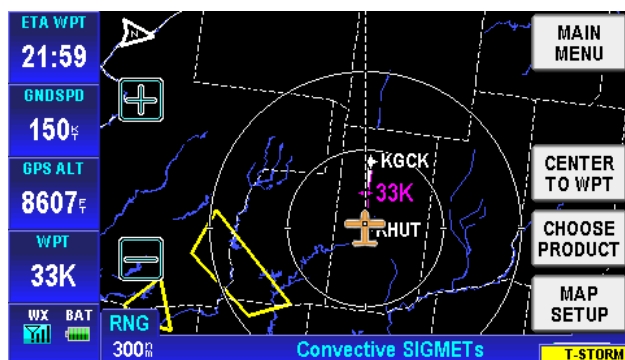


Figure 2-144: WX – Graphical Conv SIGMETs

Tap on a graphical CONV SIGMET to show the CONV SIGMET popup window. The CONV SIGMET popup window contains the CONV SIGMET name, type and age as shown in the figure below.

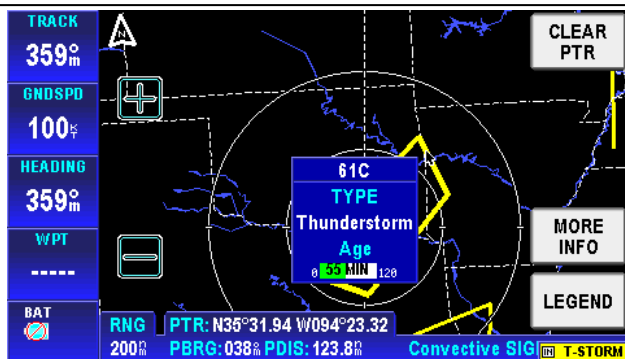


Figure 2-145: WX – Graphical CONV SIGMET Popup

Tap on the **LEGEND** soft key to display the SIGMET Legend Window.

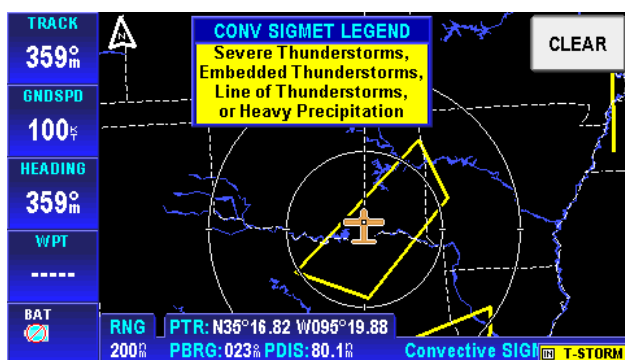


Figure 2-146: WX – Graphical Conv SIGMET Legend

Tap on the **MORE INFO** soft key to display the text SIGMET page.



Figure 2-147: WX – Text CONV SIGMETs Page

## GRAPHICAL WINDS ALOFT (USA ONLY)

When a subscription for Graphical Winds Aloft is valid, and a Winds Aloft product is available, then the Graphical Winds Aloft Page can be selected to display.

Tap on the **CHOOSE PRODUCT** soft key on the Weather Main page and select Graphical Winds Aloft from the SELECT WX PRODUCT box.

The graphical Winds Aloft page can also show overlays on the map if configured. The available overlays are: Flight Plan, Traffic and Flight Log Trail. Refer to the Map Setup section on page 2-148 for more information on how to configure the overlays

The graphical winds aloft page is shown below:

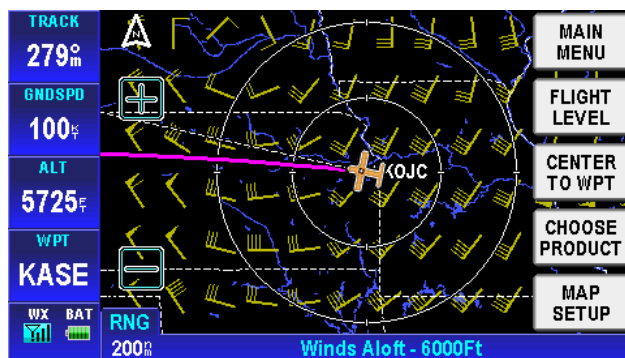


Figure 2-148: Graphical Winds Aloft



## Graphical Winds Aloft Soft Keys

The Graphical Winds Aloft page has the following soft keys:

- **MAIN MENU** - Tap the **MAIN MENU** soft key to return to the Main Menu page.
- **FLIGHT LEVEL**- Tap the **FLIGHT LEVEL** soft key to display the SELECT FLIGHT WINDOW popup box.
- **CENTER TO WPT** - Tap the **CENTER TO WPT** soft key to display the map around the current destination position. This soft key is only displayed when Direct To or OBS is active and the MAP view is centered on the aircraft position.
- **CENTER TO AIRCRAFT**- Tap the **CENTER TO AIRCRAFT** soft key to display the map around the current aircraft position. This soft key is only displayed when Direct To or OBS is active and the MAP view is centered on the destination.
- **CHOOSE PRODUCT**- Tap the **CHOOSE PRODUCT** soft key to display the Choose Product page.
- **MAP SETUP** - Tap the **MAP SETUP** soft key to display the Map Setup page.

Tap on a wind vector to display a Wind Data popup box that shows the wind speed and direction.

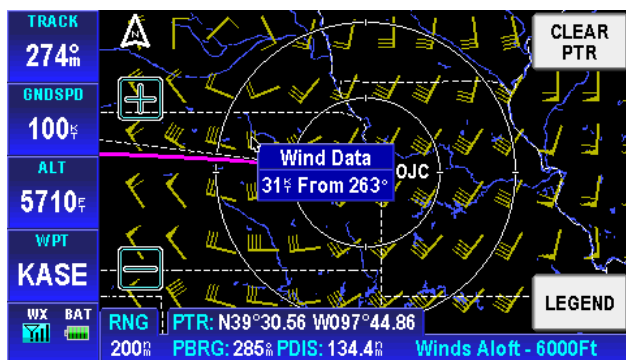


Figure 2-149: Graphical Winds Aloft – Speed and Direction

## Winds Aloft Legend

Tap on the Legend soft key to display the Winds Aloft Legend.




Winds Aloft Legend	
	CALM
	10 KTS
	20 KTS
	30 KTS
	40 KTS
	50 KTS
	100 KTS

Figure 2-150: Winds Aloft Legend

Select Flight Level

Tap on the FLIGHT LEVEL soft key to display the SELECT FLIGHT LEVEL popup box.

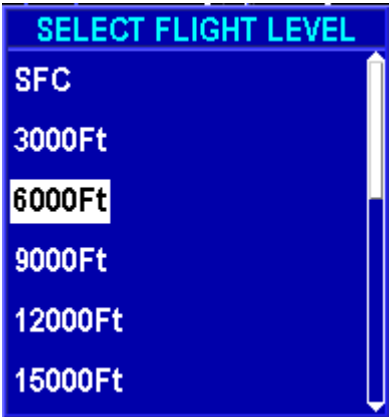


Figure 2-151: Select Flight Level

Tap on a level to highlight it and tap the **SELECT** soft key to set the selected flight level to display on the Graphical Winds Aloft page.

## GRAPHICAL FREEZING LEVEL

Tap on the **CHOOSE PRODUCT** soft key on the Weather Main page and select Graphical Freezing Level from the SELECT WX PRODUCT box. The Freezing Level page is shown.

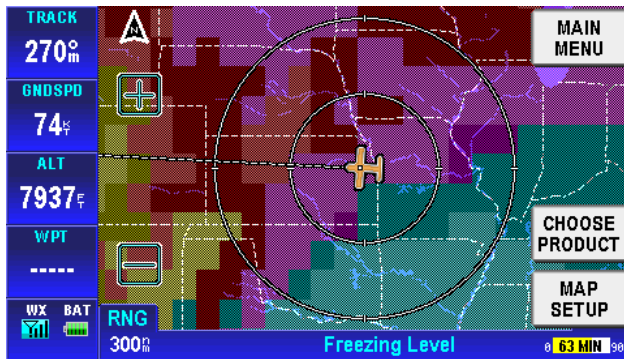


Figure 2-152: Graphical Freezing Level Page

- Tap on the **MAIN MENU** soft key to return to the Main Menu.
- Tap on the **CHOOSE PRODUCT** soft key to show the Choose Product page. The Choose Product page only shows if weather products other than NEXRAD are available.
- Tap on the **MAP SETUP** soft key to show the Map Setup page.
- Tap anywhere on the screen to show the pointer tag window.

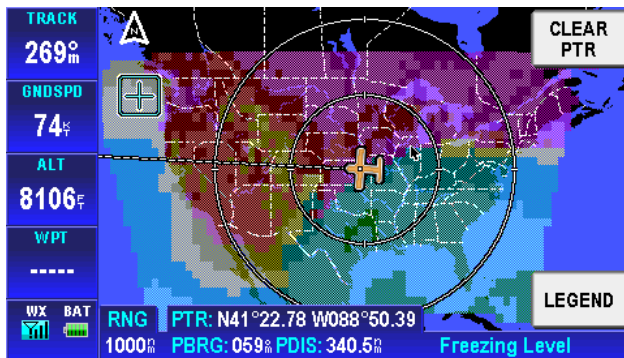


Figure 2-153: Freezing Level - Pointer Tag Window

Tap the **CLEAR PTR** soft key to remove the pointer and center the map over the aircraft position.

Tap the **LEGEND** soft key to show the “Freezing Level Legend” popup window.

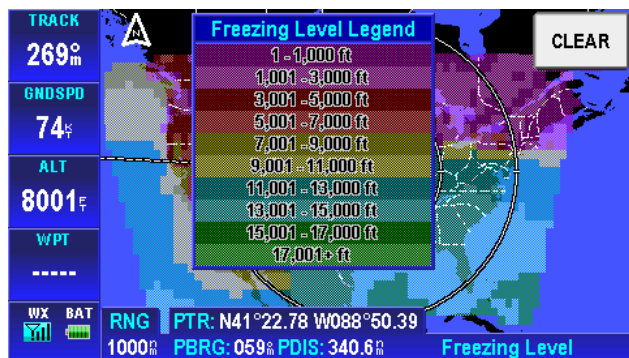


Figure 2-154: Freezing Level Legend

Tap the **CLEAR** soft key to hide the “Freezing Level Legend” popup window.

## TEXT METARS (USA AND CANADA)

Tap on the **CHOOSE PRODUCT** soft key on the Weather Main page and select Text METARs from the SELECT WX PRODUCT box.

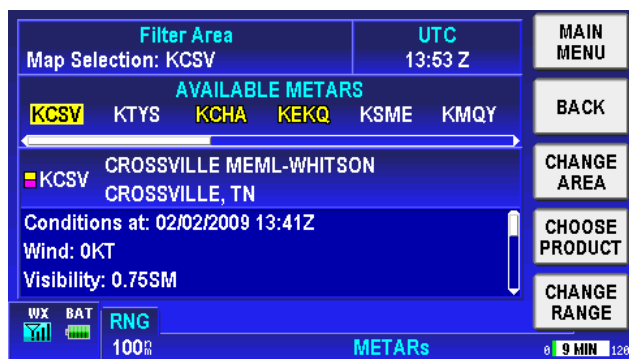


Figure 2-155: WX – Text METARs

A METAR (Aviation Routine Weather Report) describes the specific weather conditions at a particular airport at a given time.

A METAR contains elements in the following order:

- Type of report
- ICAO station identifier
- Date and time of issue
- Modifier (AUTO if automated report or COR if corrected observation)
- Wind
- Visibility
- Runway visual range (as required)
- Weather phenomena
- Sky condition
- Temperature/dew point group
- Altimeter
- Remarks (as required)

The METAR text has been translated into easy to understand text.

### TEXT TAFS (USA AND CANADA)

Tap on the **CHOOSE PRODUCT** soft key on the Weather Main page and select Text TAFs from the SELECT WX PRODUCT box.



Figure 2-156: WX – Text TAFs

A TAF is a statement of expected meteorological conditions at an airport during a specified period of time.

A TAF contains elements in the following order:

- Type of report
- ICAO station identifier
- Date and time of issue
- Date and time valid
- Wind
- Visibility
- Weather phenomena
- Sky conditions
- Wind shear (as required)
- Forecast weather change indicator

### TEXT PIREPS (USA ONLY)

Tap on the **CHOOSE PRODUCT** soft key on the Weather Main page and select Text PIREPs from the SELECT WX PRODUCT box.

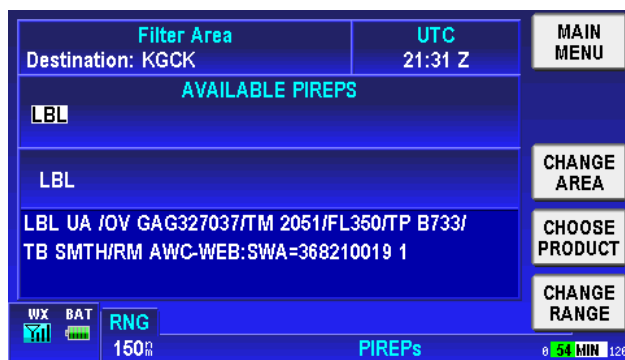


Figure 2-157: WX –Text PIREPs

A PIREP (Pilot Weather Report) is an observation of conditions at a specific location or along a specific route. These conditions are reported by pilots when communications are established with ground facilities such as EFAS, AFSS/FSS, ARTCC or ATC.

A PIREP contains elements in the following order:

- Type of message (urgent or routine)
- Location in relation to an airport or VHF NAVAID
- Time observed
- Flight Level (may not always be present)
- Type of aircraft (may not always be present)
- Sky cover (may not always be present)
- Weather conditions (may not always be present)
- Temperature (may not always be present)
- Wind direction and speed (may not always be present)
- Turbulence (may not always be present)
- Icing (may not always be present)
- Remarks (may not always be present)

### TEXT AIRMETS (USA ONLY)

Tap on the **CHOOSE PRODUCT** soft key on the Weather Main page and select Text AIRMETS from the SELECT WX PRODUCT box.



Figure 2-158: Text AIRMETS

An AIRMET is an advisory of significant weather that could be hazardous to single engine, light aircraft and VFR pilots. However, parameters are such that the phenomena do not require issuance of a SIGMET. AIRMETS address details regarding IFR, extensive mountain obscuration, turbulence, strong surface winds, icing and

freezing levels. AIRMETs are considered widespread because they must either be affecting or forecast to affect an area at least 3,000 square miles. However, during the forecast period, the actual affected area may be much smaller. AIRMETs are issued every six hours and the maximum forecast period is 6 hours.

An AIRMET contains elements in the following order:

- Forecast Area
- Report Type
- Date and time issued
- Report designation and reason for issuance
- Validity period
- Area of coverage
- Weather phenomenon details.

## TEXT SIGMETS (USA ONLY)

Tap on the **CHOOSE PRODUCT** soft key on the Weather Main page and select Text SIGMETs from the SELECT WX PRODUCT box.



Figure 2-159: Text SIGMETs

A SIGMET) is an advisory of non-convective weather that is potentially hazardous to all aircraft. SIGMETs address details regarding severe icing not associated with thunderstorms, severe or extreme turbulence not associated with thunderstorms, dust or sand storms lowering visibility to less than 3 miles, volcanic ash. SIGMETs are considered widespread because they must either be affecting or



forecast to affect an area at least 3,000 square miles. However, during the forecast period, the actual affected area may be much smaller. SIGMETs are issued as needed and the maximum forecast period is 4 hours, except for 6 hours for conditions associated with hurricanes.

A SIGMET contains elements in the following order:

- Forecast Area
- Report Type
- Date and time issued
- Report designation and reason for issuance
- Validity period
- Area of coverage
- Location of weather phenomenon
- Weather phenomenon details.

## TEXT CONV-SIGMETS (USA ONLY)

Tap on the **CHOOSE PRODUCT** soft key on the Weather Main page and select Text Conv-SIGMETs from the SELECT WX PRODUCT box.



Figure 2-160: Text Conv-SIGMETs

A Convective SIGMET (Convective Significant Meteorological Information) is an advisory of convective weather that the forecaster

believes hazardous to all aircraft. Convective SIGMETs address details regarding severe thunderstorms, embedded thunderstorms, a line of an area 40 percent or more of an area at least 3,000 square miles. Convective SIGMETs are issued hourly with a maximum forecast period of 2 hours.

A Convective SIGMET contains elements in the following order:

- Region Identifier and issue date and time
- Report designator
- Validity period
- Area of coverage
- Location details
- Weather phenomena details

## LEGEND

In pointer mode (the user taps on the map and a black arrow pointer is shown) the **LEGEND** soft key is used to display the Legend Window.

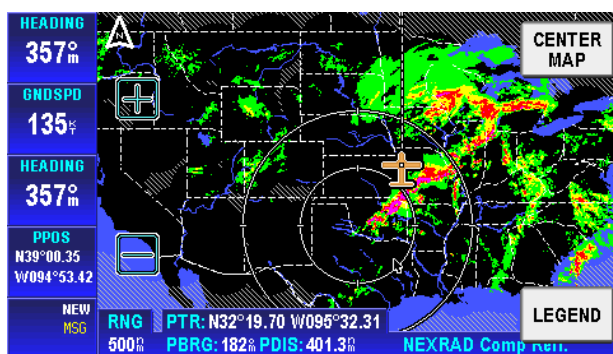


Figure 2-161: WX – Pointer mode

Tap on the Legend soft key to show the legend for the current Weather product displayed on the screen.

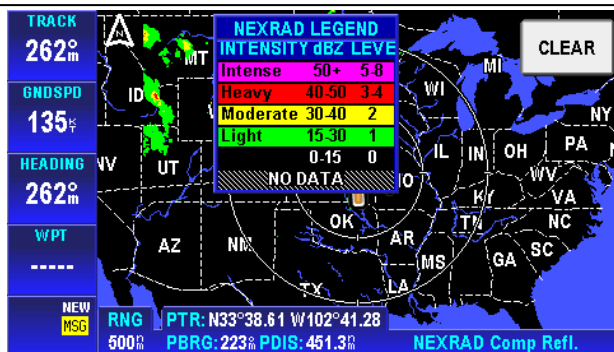


Figure 2-162: WX – Legend Info

## XM Overlays

The following additional XM services can be overlaid on the primary pages:

- Metar:
- Graphical TFR Overlay
- Lightning
- Cloud Tops

## Storm Cells

Overlays are configured in the Overlay Setup page in the Map Setup section as shown in the figure below.

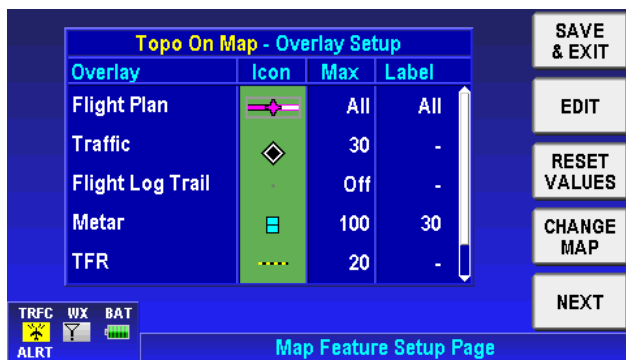


Figure 2-163: Topo On Map – Overlay Setup

Refer to the Map Setup section on page 2-148 for more information on how to configure overlays.

## GRAPHICAL METAR OVERLAY

Graphical Metars are displayed on their own page in the weather section with the **CHOOSE PRODUCT** soft key. GRAPHICAL Metars can also be displayed on the Topo On map, Topo Off map and the Nexrad Map as an overlay. The figure below shows graphical Metar overlays on the map page.

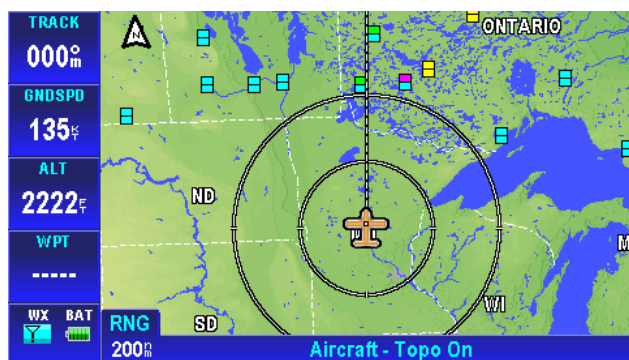


Figure 2-164: Graphical Metar Overlay on Map Page

## GRAPHICAL TFR OVERLAY

When TFR has been set to display in the Overlay Setup page and a valid TEXT TFR product is available, and a subscription for GRAPHICAL TFRs is valid, then the GRAPHICAL TFRs are displayed on the Map page as shown in the figure below. TFRs can also be configured to display on the Topo Off page and the Nexrad page.

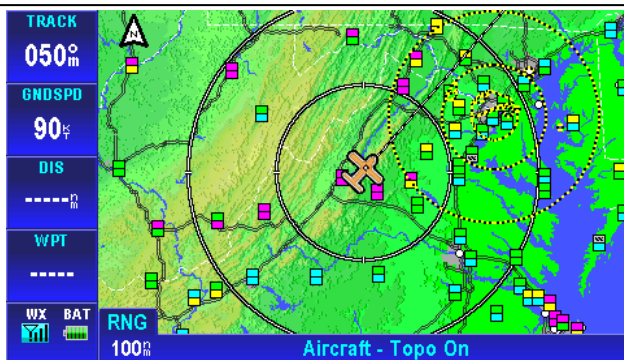


Figure 2-165: TFR Overlay

TFRs show as a yellow/black segmented line which represents the boundary around the TFR area. Tap on the TFR line to show the TFR Pop-UP window.

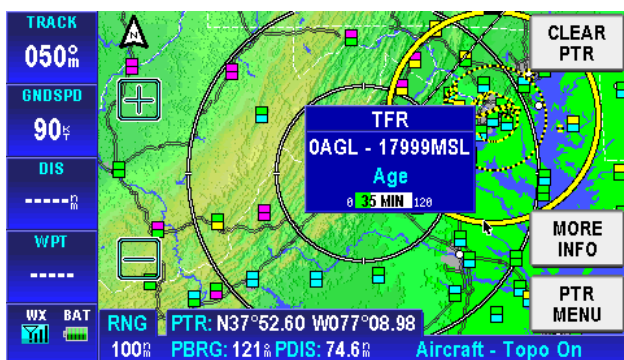


Figure 2-166: TFR Overlay – Popup

Tap on the **MORE INFO** soft key to show the Temporary Flight Restriction window.

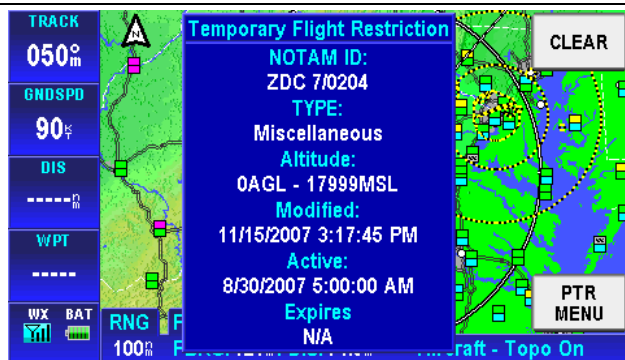


Figure 2-167: TFR Overlay – MORE INFO

## LIGHTNING OVERLAY

When Lightning has been set to display in the Overlay Setup page and a subscription for Lightning is valid, then lightning strikes are displayed on the Map page as shown below



Figure 2-168: Lightning Strikes on Map Page

A Lightning strike icon may be caused by a single or multiple strikes in the same area.

Each strike is less than 7 minutes old when it is initially displayed on the Map page. Each strike is displayed for 20 minutes. A lightning strike can remain on the Map page for up to 27 minutes total.

## CLOUD TOP OVERLAY

Cloud Tops are only displayed on the Nexrad Map as an overlay. The figure below shows cloud tops on the Nexrad Map.

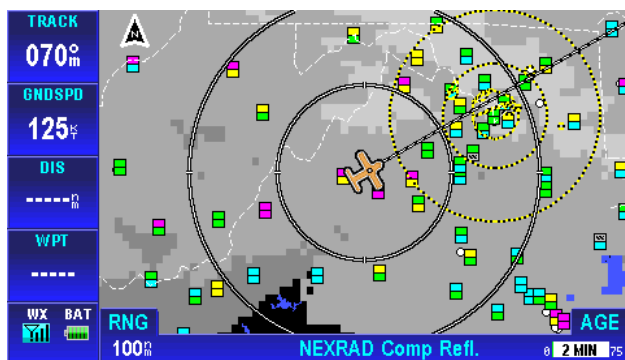


Figure 2-169: Cloud Top Overlay on Nexrad Page

## STORM CELL OVERLAY

Storm Cell can are only displayed on the Nexrad Map as an overlay. The figure below shows storm cells on the Nexrad Map.

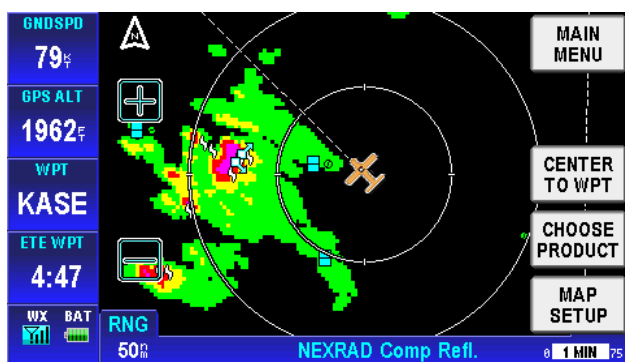


Figure 2-170: WX –Storm Cells Overlay on Nexrad Page

## TRAFFIC FUNCTION

### CAUTION

The Zacon XRX and other similar traffic receivers are not recommended as a substitute for proper traffic scanning procedures as listed in the FAA Airman's Information Manual and under the "See and Avoid" concept presented in FAA AC90-48C. The display of traffic targets on AV8OR from these receivers is intended to be used as an additional tool to determine potential traffic threats and help the pilot to locate other aircraft while in VFR conditions.

Make sure you fully understand the operations and limitations of the Zacon XRX and other similar traffic receivers before you use them with the AV8OR. Abrupt changes in the control of the aircraft due to a Traffic Alert should be avoided unless positive identification with the traffic is made, or you have been ordered to do so by the Air Traffic Controller. The FAA, their representatives, as well as published airspace regulations, always supersede any indication given by the Zacon XRX and other similar other traffic receivers.

## Hardware Accessory

The AV8OR unit interfaces to the Zacon XRX traffic receiver. The traffic receiver is used to receive the traffic information which is then displayed on the screen.

See chapter 6 "Connection to An External Traffic Source" section on page 6-16 for directions on how to connect AV8OR to a traffic receiver.

When the Zacon XRX is set up so that the detection envelope is within a 6 nm radius and  $\pm 2500$ ft altitude of the aircraft,

When the Zacon XRX is configured correctly and AV8OR is receiving traffic information from the traffic receiver, a blue traffic icon is displayed on the Status window in the left bottom corner of the Map



page



If AV8OR is configured correctly and does not receive traffic information from the Zoon XRX, a caution popup window shows on


**CAUTION**

No data received  
from Traffic unit

the Traffic page

## Traffic Main Page



Tap the  soft key on the Aviation Main Menu page to display the Traffic page as shown in the figure below.

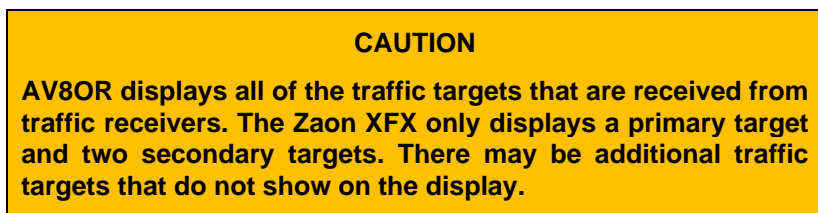









Figure 2-171: Traffic Main Page

### FIELDS ON THE TRAFFIC PAGE:

-  Traffic Alerts targets show as a solid yellow circle. Traffic alerts are used for targets within 0.7 nm range and within 700 ft of the same altitude.

-  Traffic Advisories targets show as a white diamond icon. Traffic advisories are used for targets outside the Traffic Alerts zone and within 2.0 nm and 1000 ft altitude.
-  Other targets show as a black diamond with a white border. The black diamond icon is used for targets that are outside the Traffic Alerts zone and the Traffic Advisories zone.
-  The altitude of traffic target is shown above the target symbol if the aircraft is above own aircraft altitude.
-  Altitude of traffic target is shown below the target symbol if the aircraft is above own aircraft altitude.
- 
 A vertical trend is shown with a down arrow to the right of the target symbol if altitude trend down is 500 ft/min or greater. The Altitude trend is shown with an up arrow to the right of the target symbol if altitude trend up is 500 ft/min or greater.

## TRAFFIC SETUP

Tap the **TRAFFIC SETUP** soft key on the Traffic page to change the setup settings as shown in the figure below.



Figure 2-172: Traffic Page – Traffic Setup

## Flight Level

Tap the **FLIGHT LEVEL** soft key to change the altitude labels above the targets from altitude above or below the target (100 ft increments) to the altitude of target above sea level (100 ft increments)



## Enable/Disable Pop-UP

To enable traffic alerts pop-ups, tap the **ENABLE POP\_UP** soft key to display the following pop up window, as shown in the figure below.



Figure 2-173: Traffic page – Enable Pop-Up

Tap the **OK** soft key to accept the change and return to the Traffic page.

Tap the **CANCEL** soft key to cancel the change and return to the Traffic page.

When the Traffic Alerts Pop-up is enabled, AV8OR displays the Traffic Page whenever an alert is given.



A traffic alert symbol is also displayed in the Status window. "ALRT" flashes on and off to draw attention to the Traffic Alert.

To disable pop-up traffic, do the following steps:

Tap the **DISABLE POP\_UP** soft key to display the following pop up window, as shown in the following figure.



Figure 2-174: Traffic page – Disable Pop-Up

Tap the **OK** soft key to accept the change and return to the Traffic page.

Tap the **CANCEL** soft key to cancel the change and return to the Traffic page.

## TAXIWAYS FUNCTION

Airport Diagrams that the FAA has published for the U.S.A. are available for the AV8OR handheld (charts subscription required).

A charts subscription for the Airport Diagrams is available from Seattle Avionics at the following URL ([seattleavionics.com/av8or](http://seattleavionics.com/av8or)).

As part of the subscription process, an automatic charts download utility called the "Data Manager" can be installed on your home computer. The data manager runs in the background and downloads new data each month as the data becomes available. The data manager will automatically download Airport Diagrams (if not already downloaded) and update your AV8OR any time that it is plugged into your PC via the USB cable.

## Chart View Page



Tap the **Taxiway** soft key from the Main Menu page to enter the Chart View Page.

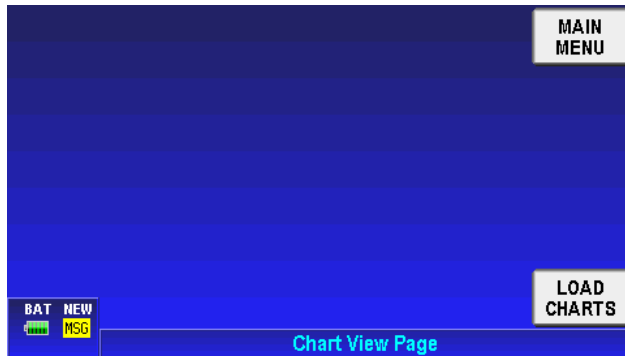


Figure 2-175: Chart View Page - No Airport Diagrams Loaded

- Tap the **MAIN MENU** soft key to return to the **Main Menu** page.
- Tap the **LOAD CHARTS** soft key to go to the **Charts/Procedure Page** to load an airport diagram for display.

## Charts/Procedure Page

If a destination airport is currently selected or a flight plan is active, a preview of the airport diagram is generated on the page and the airport identifier shows after the "Airport:" label.

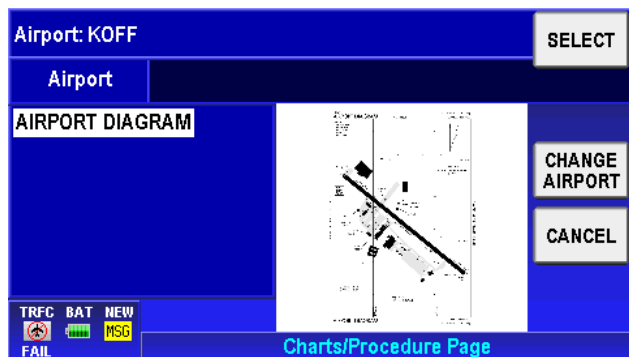


Figure 2-176: Charts/Procedure Page

- Tap the **CHANGE AIRPORT** soft key to display a virtual keyboard. Type in the Airport Identifier and tap the **Enter** key. If the airport does not have a published FAA airport diagram, the airport diagram preview will not show. Tap the **OK** soft key to confirm the correct airport selection.
- Tap the **SELECT** soft key to view the selected airport diagram.

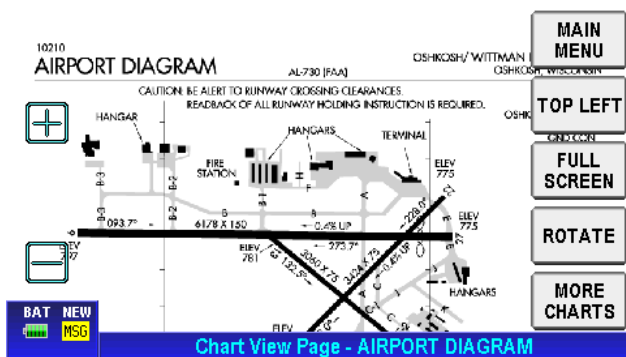


Figure 2-177: Chart View Page with Airport Selected Page

- Tap the **TOP LEFT** soft key to zoom in and show only the top left portion of the airport diagram. Each time that the soft

key is tapped, a different section of the airport diagram is displayed. The display changes from the top left to the top right to the bottom left and then to the bottom right.

- Tap the **FULL SCREEN** soft key to show the complete airport diagram on the page.
- Tap the **ROTATE** soft key to rotate the airport diagram 90 degrees.
- Tap the zoom in “+” or zoom out “-” soft keys on the left side of the page to zoom in or out of the airport diagram.
- Tap the **MAIN MENU** soft key to return to the Main Menu page.
- If the **MORE CHARTS** soft key shows, tap it to select a different chart.
- If the **CHARTS** soft key shows, tap it to show the “Select Charts to View” menu.

## SELECT CHARTS TO VIEW MENU

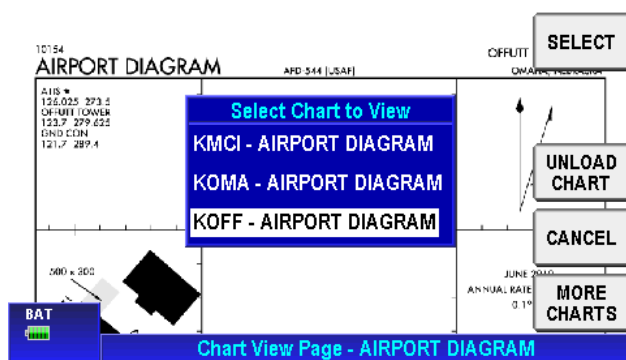



Figure 2-178: Chart View Page with Airport Selected Page

- Tap on an airport identifier from the list to highlight it. For example, the **KOFF** airport identifier is highlighted in the above figure.
- Tap on the **SELECT** soft key to select the highlighted airport identifier.
- Tap on the **UNLOAD CHART** soft key to remove the highlighted airport identifier from the list of loaded charts.
- Tap on the **CANCEL** soft key to cancel the selection of a different airport diagram.
- Tap on the **MORE CHARTS** soft key to add another airport diagram to the list of loaded charts.

## PANEL FUNCTION

### Panel Page



Tap the  soft key from the Main Menu page to enter the Panel page.

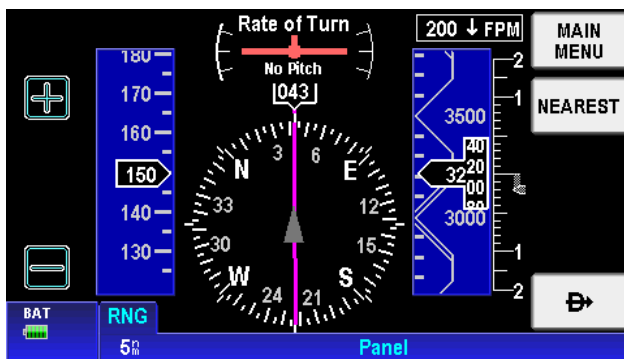


Figure 2-179: Messages

This page simulates a modern, glass panel PFD. The instruments are based on GPS input **ONLY**. Therefore, the AV8OR Portable Glass Panel displays Rate of Turn, Ground Speed, GPS Altitude, Vertical Speed and a Compass Rose integrated with the aircraft flight plan display.

- Tap the **MAIN MENU** soft key to return to the Main Menu page.
- Tap the **NEAREST** soft key to display a popup Nearest Database Selection menu. Use the Nearest Database Selection menu to select a Direct To waypoint. Once selected and the Direct To soft key is tapped, a magenta line shows on the Compass Rose that is aligned with the direct to course to the selected waypoint as shown in the figure below. Waypoints will also show on the screen if they are within the set range (**RNG**).
- Tap the **Direct To** soft key to display the virtual keyboard to select a new waypoint. When the OK button is pressed, a magenta line shows on the Compass Rose that is aligned with the direct to course to the selected waypoint as shown in the figure below.



- Tap the Zoom in “+” or the Zoom out “-” Icons to decrease or increase the range (**RNG**) value.

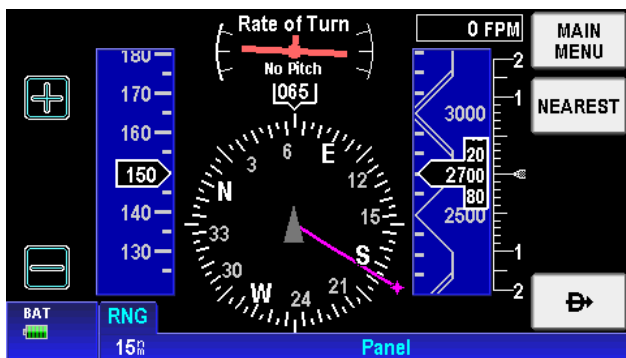


Figure 2-180: Panel Page: New Waypoint Selected

# AUXILIARY FUNCTION

## Messages Page


Tap the  soft key from the Main Menu page to enter the Messages page.



Figure 2-181: Messages

The User can also access the Messages page when a new message is indicated in the Status Window. Tap the flashing new message Status Window in any other function page and the Messages page is shown.

The Message soft key stays active until the message has been viewed or the message has been removed from the queue. If the number of system messages exceeds the area on the display, a scroll bar is displayed to let the user to scroll through all of the messages.

The table that follows lists the different messages that can be displayed.

Table 2-7 Messages

Message Text	Cause
Airspace Alert [followed by name, type and limits of airspace]	When airspace alerting has been enabled and the aircraft is within the alerting zone
Inside SUA [followed by name, type and limits of airspace]	When airspace alerting has been enabled and the aircraft is inside the airspace

<b><u>Message Text</u></b>	<b><u>Cause</u></b>
Internal GPS failure	When the internal GPS is configured but no data is being received from it
Nav data Referenced to True North	When the operator has elected to use a manually input magnetic variation offset of ZERO
Nav data Referenced to User-Defined Mag Var	When the operator has elected to use a manually input magnetic variation rather than AUTO
Unit Configuration validation errors found, values set to default.	Some System setting were out of range and were set to defaults
User setting validation errors found, values set to default.	Some User settings were out of range and were set to defaults
Unit Configuration cleared to Defaults	The System settings NVM could not be used so default settings were used instead
All User Settings cleared to Defaults	The User settings NVM could not be used so default settings were used instead
Failed to save user settings	All attempts to save & back up User/System/Volatile data failed.
Unit History Data cleared to Defaults	The Volatile settings NVM could not be used so default settings were used instead
Detailed terrain database is invalid	The fine terrain database could not be loaded from the card or its checksum was found to be invalid.
Failed to read FPL file	A flight plan file could not be read.
The FPL file had formatting errors	The format of a flight plan file was incorrect.
Failed to read user WPT from file	User WPTs could not be read from a flight plan file.
Failed to read flight plan from file	A flight plan could not be read from a flight plan file.
Failed to read FPL WPT from file	A flight plan WPT could not be read from a flight plan file.

<b><u>Message Text</u></b>	<b><u>Cause</u></b>
Failed to merge user WPT from file	While merging WPTs from a flight plan file, a WPT was found with an ident matching an existing WPT, but at a different location.
Not enough available space to merge user WPTs	There is not enough memory to merge in WPTs from a flight plan file.
Failed to merge FPL WPT	A user WPT in a merged flight plan was not found in the user WPTs data.
Not enough space to merge flight plans	There is not enough memory to merge in flight plans from a flight plan file.
Duplicate user WPT in flight plan file	While loading user WPTs from a flight plan file, a WPT was found with an ident matching an existing user WPT.
User Waypoint memory full	A WPT loaded from a flight plan file could not be stored because user WPT memory was already full.
Flight plan WPT(s) not found in database have been deleted	When one or more of the WPT references in a flight plan file do not exist in the database
Error writing flight plan data to data card	When the software encounters an error while trying to write a flight plan file.
Unable to save a flight plan backup	All attempts to back up the flight plan data failed.
Unable to convert flight plan data after DB update, all user flight plans deleted	When the system detects a changed database but cannot find a current backup of the flight plan resulting in all user flight plans to be deleted
Battery Low	Generated when the battery level remaining drops below 5% of full charge

## MESSAGES SOFT KEYS

**MAIN MENU** – Tap on the **MAIN MENU** soft key to return to the Main Menu page.

**PREV PAGE** – The **PREV PAGE** soft key only shows if this page was entered by tapping on the MSG icon in the Status Window. This soft key returns to the previous page.

**CHECKLIST** – Tap the **CHECKLIST** soft key to display the Checklist page.

**WIND CALC** - Tap the **WIND CALC** soft key to display the Wind Calc page.

**WEIGHT BALANCE** - Tap the **WEIGHT BALANCE** soft key to display the Weight and Balance page.

## Checklist

Tap on the **CHECKLIST** soft key to display customized checklists.

The checklists can only be created, edited and deleted on a PC and then transferred to the SD card. In order to create a valid checklist and allow the software to find the checklists the following rules must be followed:

- The Checklists must be stored in the \GoFly\data\user\Notepads directory on the SD card.
- Checklists must be text files.
- The filename must have the .txt extension. (Example is "emergency.txt")
- The file size must be less than 16,384 bytes.
- A text file with the name "route.txt" is an invalid checklist filename and is not recognized. The filename "route.txt" is used to load flight plan and WPT data.
- The name assigned to the file will be the name displayed on the checklist page. Therefore, the name should be representative of the function the checklist is performing. An example is "Engine Start".
- Checklists must be created using the following rules:
- Each checklist item should start with [] square brackets to create an easy to read checklist.
- The [] brackets are interpreted as a check box indication and can appear anywhere.
- Each checklist item must end with a carriage return.

- The number of characters on each line should be limited to 50 or fewer characters. If more than 50 characters are on a line, then the text will wrap to the next line.
- Everything is displayed as typed.

An example checklist is shown below:

- ☐ Entry 1
- ☐ Entry 2
- ☐ Entry 3
- ☐ Entry 4
- ☐ Entry 5
- ☐ Entry 6

When checklists are available; tap on the **CHECK LIST** soft key to show a menu of the available checklists.

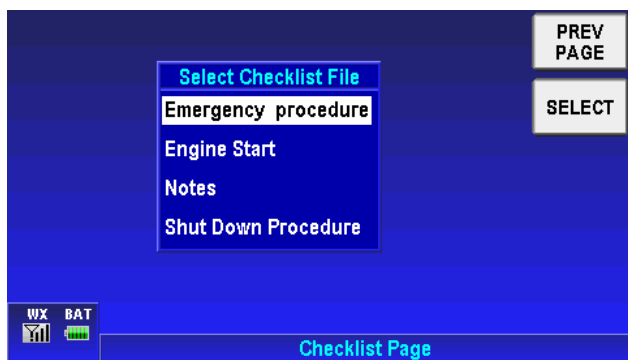


Figure 2-182: Checklist Page

Highlight a checklist and tap the **SELECT** soft key to display the checklist.

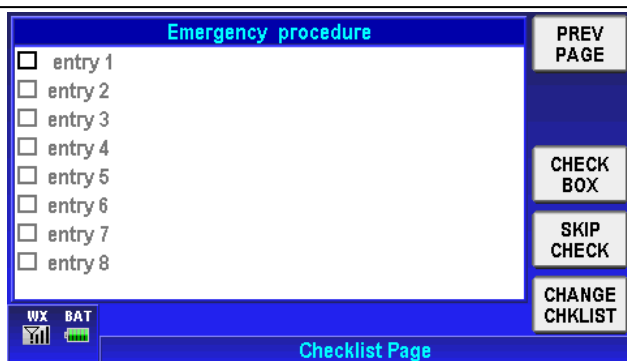


Figure 2-183: Checklist Page

Tap the **PREV PAGE** soft key to return to the Checklist Page.

Tap the **CHECK BOX** soft key to put a check mark in the first checkbox.

Tap the **SKIP CHECK** soft key to skip to the next check box.

Tap the **CHANGE NOTEPAD** soft key to change to a different checklist.

## Wind Vector Calculator Page

Tap on the **WIND CALC** soft key on the Message page to display the Wind Vector Calculation Page, as shown in the figure below.

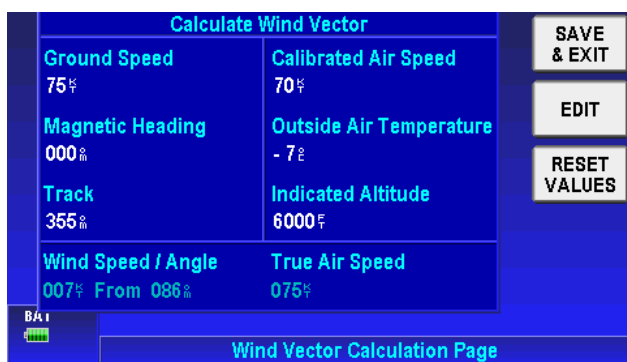


Figure 2-184; Wind Vector Calculation Page

This page allows the user to enter the following parameters: Ground Speed, Magnetic Heading, Desired Track (DTK), Calibrated Air Speed (CAS), Outside Air Temperature (OAT) and Indicated

Altitude. After these parameters are entered, the unit calculates Wind Speed / Angle and True Air Speed (TAS). If the Wind data window is selected, the Wind Speed and Direction are displayed in the window.

The Ground Speed, Track and Indicated Altitude parameters are automatically entered by the program.

Enter the Magnetic Heading, Calibrated Air Speed and Outside Air Temperature to enable the Wind calculation function to calculate the winds speed/angle and True Air Speed. Double tap on each field or tap on each field to highlight it and tap the **EDIT** soft key to display a numeric entry keypad as shown in the figure below.



Figure 2-185: Enter Magnetic Heading

Enter the correct value and tap the **Enter** button to accept the value.

## Weight and Balance Page

Using aircraft-specific data, the Weight and Balance page lets the pilot quickly calculate both take-off and zero-fuel moments. The pilot can see the data in table format, a Center of Gravity (C.G.) Envelope Graph and an aircraft layout page. The Layout page is the opening page as shown in the figure below.



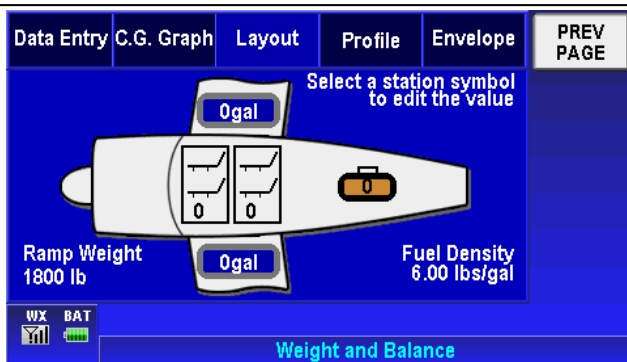


Figure 2-186: Weight and Balance Page

Tap the **PREV PAGE** soft key to return to the Messages Page.

The five tabs that follow show across the top of the top of the page:

- Data Entry
- C.G. Graph
- Layout
- Profile
- Envelope

**DATA ENTRY** - The Data Entry page is used to enter the aircraft's loading for the flight. The weight of passengers in each row, baggage and amount of fuel in gallons is entered on this page. The Arm locations for each line item can be entered once and are stored along with the rest of the aircraft profile.

Data Entry	C.G. Graph	Layout	Profile	Envelope	PREV PAGE
	Wt(lb)/Vol(gal)	Arm(in)	Moment (lb-in/1000)		EDIT
Empty	1800	38.000	68.400		RESET
Row 1	0	43.500	0.000		
Row 2	0	80.000	0.000		
Ramp	2280	41.578	94.800		FILE
<div> <div>WX BAT</div> <div>Weight and Balance</div> </div>					

Figure 2-187: W&B Data Entry Page with Profile and Envelope Tabs Filled Out

Tap the **PREV PAGE** soft key to return to the Messages Page.

Tap the **EDIT** soft key to edit data on a highlighted cell. The left rows that show depend on the data setup in the aircraft Profile tab.

Tap the **RESET** soft key to reset the data on the displayed tab back to the default settings.

Tap the **FILE** soft key to save the displayed Weight and Balance data to a file as shown below.

**NOTE:** The **FILE** soft key can be accessed from the "Data Entry", "Profile" and the "Envelope" tab on the Weight and Balance screen.

Data Entry	C.G. Graph	Layout	Profile	Envelope	CLOSE
Airplane Registration	N12345AB		<div> <div>Aircraft Profile</div> <div>- in/lb/gal</div> </div>		NEW FILE
Units					SAVE
Plane Type	N12345AB				LOAD
# Rows of seats	2				DELETE
# Baggage Areas	1				
<div> <div>WX BAT</div> <div>Weight and Balance - N12345AB</div> </div>					

Figure 2-188: W&B - FILE Options Page

The **FILE** page soft key functions are shown below.

Tap on the **CLOSE** soft key to close the **FILE** page.

Tap on the **NEW FILE** soft key to create a new weight and balance file. The virtual keyboard shows to enter a new file name.

Tap on the **SAVE** soft key to save the highlighted file. Any previous settings will be overwriting by the current settings.

Tap on the **LOAD** soft key to load a weight and balance file.

Tap on the **DELETE** soft key to delete the current weight and balance file.

**C.G. GRAPH** - The C.G. Graph displays both the Ramp (take-off) weight/CG and the Zero-Fuel weight/CG.

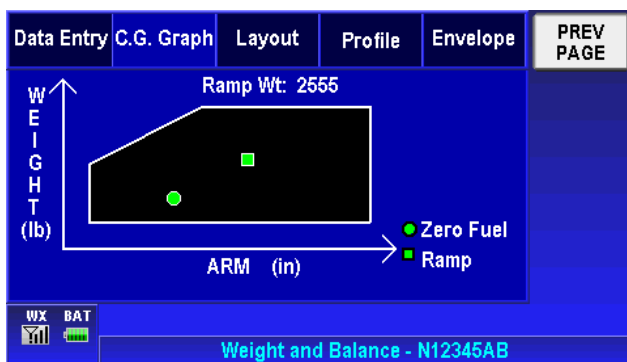


Figure 2-189: W&B COG Graph with Profile and Envelope Tabs Filled Out

If the aircraft is loaded beyond the limits entered, the point and graph lines change to a RED color, and a red **"EXCEED"** warning appears on the graph as shown in the figure below.

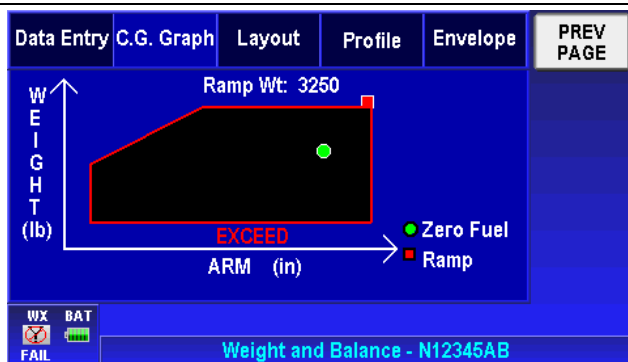


Figure 2-190: W&amp;B - Aircraft Loaded Beyond C.G. Limits

**LAYOUT** - The Layout page displays the loading of the aircraft graphically. This view makes it easy to identify ways to shift loading to adjust the C.G. to a desired point.

Tap on each station to display a numeric keypad. Enter the correct amount and tap on the “Enter” key to insert the amount into the selected station. As weight is added to each station, it shows in the correct position on the aircraft graph.

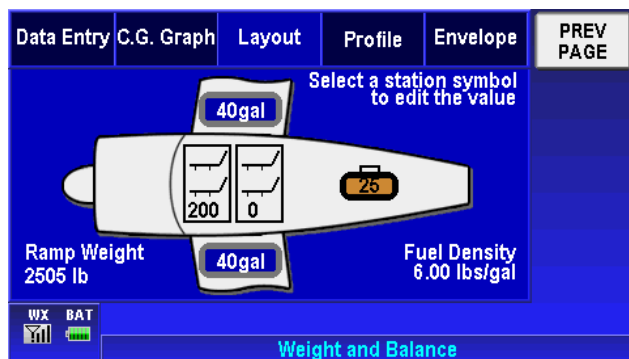


Figure 2-191: W&amp;B Layout Page with Profile and Envelope Tabs Filled Out

**PROFILE** – Use the Profile page to enter information about the aircraft, including its seating and baggage configuration, type of fuel, empty weight/arm and the number of C.G. Envelope points. For example, if the allowable C.G. envelope for a particular aircraft is a rectangle, you would enter “4” as the number of envelope points.

This data is entered once for each aircraft profile that you would like to save in the AV8OR.

Data Entry	C.G. Graph	Layout	Profile	Envelope	PREV PAGE
Airplane Registration			N12345AB		EDIT
Units			English - in/lb/gal		
Plane Type			Single		
# Rows of seats			2		
# Baggage Areas			1		
					FILE
<div> <div>WX BAT</div> <div>Weight and Balance</div> </div>					

Figure 2-192: W&B Profile Page

Tap the **PREV PAGE** soft key to return to the Messages Page.

Tap the **EDIT** soft key to edit data on the highlighted cell. Use the scroll bar to view any fields that are not visible on the screen.

The following data entry fields are available:

- Aircraft Registration – Enter the registration number for the aircraft.
- Units – Select the units you want to use for the aircraft.
- Available selections are;
- English – in/lb/gal
- English – ft/lb/gal
- Metric – cm/kg/l
- Metric – m/lg/l
- Plane Type– Select Single or Twin.
- # Rows of seats – Enter the number of rows of seats.
- # Baggage Areas – Enter the number of baggage areas.
- # Fuel Tanks – Enter the number of fuel tanks.

- Empty aircraft weight – Enter the aircraft empty weight.
- Empty aircraft arm – Enter the empty aircraft arm.
- Fuel density – Enter how much the fuel weights for each selected unit. For example, enter “6.00” for the fuel weight of 100 No Lead Aviation fuel with lbs/gal selected for the Units field.
- Number of envelope points – Enter the number of envelope points that the COG graph has.

Tap the **FILE** soft key to save the displayed Weight and Balance data to a file.

**ENVELOPE** – Use the Envelope page to enter information about the allowable C.G. envelope for the aircraft. Once the number of envelope points has been added on the aircraft profile page, the location of each point on the graph is defined here. The data points that define the allowable C.G. envelope for a particular aircraft can typically be found in either the aircraft flight manual or in the aircraft's Type Certificate. This data is entered once for each aircraft profile that you would like to save in the AV8OR.

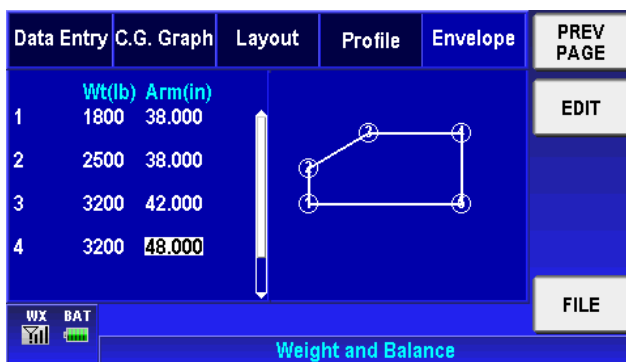


Figure 2-193: W&B Envelope Page

The Envelope tab contains data entry field for the number of envelope points that was defined in the Profile tab

Tap the **PREV PAGE** soft key to return to the Messages Page.

Tap the **EDIT** soft key to edit data on a highlighted cell. Enter the weight and the arm in each field of the Envelope page. Use the scroll bar to view any fields that are not visible on the screen.

Tap the **FILE** soft key to save the displayed Weight and Balance data to a file.

## CREATING A NEW WEIGHT AND BALANCE SECTION

Use the following order of entry to create a new Weight and Balance section for an aircraft.

1. Select the **Profile** tab and enter data for all of the fields.
2. Select the **Envelope** tab and enter the weight and the arm for the number of envelope points that was entered in the **Profile** tab.
3. View the **C.G. Graph** page and the **Layout** page and make sure that they match your aircraft flight manual Type Certificate.
4. Select the Data Entry Tab and enter the Arm for each row that shows. (Rows were defined in the **Profile** page)
5. Tap on the **FILE** soft key to save or create a new weight and balance file. An Aircraft Profile pop up button shows. If no Weight and Balance file has been created yet, only the **CLOSE** and the **NEW FILE** soft keys show. If a file has already been created, **SAVE**, **LOAD** and **DELETE** soft keys also show.
6. Tap on the **NEW FILE** soft key and enter the name of the new aircraft profile into the data entry screen. Tap on the "Enter" key to accept the aircraft profile name.
7. Tap on the **SAVE** soft key and the **OK** soft key to save the new aircraft profile.

Multiple Weight and Balance aircraft profiles can be created for different aircraft. After the aircraft profiles are created, use the **FILE** soft key that shows on the "Data Entry", "Profile" or "Envelope" tabs on the Weight and Balance screen to display the "Aircraft Profile" window. Select and highlight the aircraft profile you want to use and tap on the **LOAD** soft key to load that profile into the current settings.

The latest A/C settings are automatically saved and retained through a power cycle and used as default when GoFly is restarted as follows:

1. Preserves last opened aircraft profile for next use (aircraft name, W&B envelope, etc.). This includes all information from the Profile and Envelope pages.
2. The weight for the 1st row of seats (pilot) is retained from last use (ex: 180lbs)
3. All station arms entered on the Data Entry page are preserved.
4. All other station weights and fuel volumes are zeroed (fuel, baggage, other rows, etc.)



## SYSTEM SETUP FUNCTION

Tap the System Setup  soft key on the Aviation Main Menu page to enter the System Setup Menu page, as shown in the figure below.



Figure 2-194: System Setup – System Setup Menu Page

The System Setup Menu allows the user to set parameters for items that show in the menu. Tap and highlight an item in the menu list and tap the **SELECT** soft key to enter the corresponding item's setup page.

### System Setup Menu

The **System Setup Menu** has the following setup categories:

- General System Setup
- Map Setup
- Navigation Setup
- Data Field Setup
- Flight Plan Data Setup
- Device Setup
- NMEA Output Setup
- Demo Mode Setup (If Demo mode is enabled)

## GENERAL SYSTEM SETUP

The General System Setup page is shown in Figure 2-195. Tap the desired item in the left list column and the associated value field is highlighted in the right column.

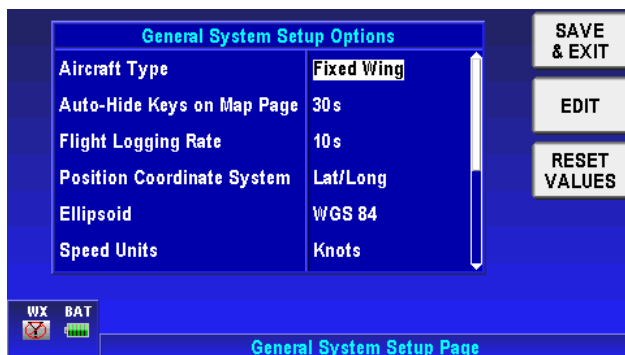


Figure 2-195: System Setup – General System Setup Options

Double tap the highlighted value item or tap on the EDIT soft key to display a pop up window to show the possible values that can be set. Double tap on a value to select it or tap once on a value to highlight it and then tap the SELECT soft key to select the item. Tap the CANCEL soft key to cancel the selection.



Figure 2-196: System Setup – Setting values

Tap the **SAVE & EXIT** soft key to save any changes. Tap the **RESET VALUES** soft key to restore most of the values in the General System Setup Options tables to their factory initial settings. The values that not reset are: Aircraft Type and Min Runway length.

The following are the general system setup options and their possible values.

- **Aircraft Type:** Select the appropriate host aircraft type: **Fixed Wing** or **Rotary Wing**. This determines the aircraft symbol that is used in VFR Moving Map mode.
- **Auto-Hide Keys on Map Page:** When this option is turned ON and a value in seconds is set, all the soft keys on the VFR Moving Map page are automatically removed after the set time delay. Touching on the screen makes the soft keys visible again. If the option is set to OFF the soft keys are always visible.
- **Flight Logging Rate:** Sets the interval in seconds that the system logs position data and loads it into a 2000-point cyclic memory. The interval can be set between 1 and 99 seconds.
- **Position Coordinate System:** Sets the coordinate system to be used for the display and entry of position information. The available options are:
  - **Lat/Long:** (Latitude and longitude)
  - **OS (GB):** Ordnance Survey Great Britain
  - **OS (Ireland):** Ordnance Survey Ireland
  - **UTM:** Universal Transverse Mercator
  - **MGRS:** Military Grid Reference System.
- **Ellipsoid:** Sets the datum to be used for the display and entry of position information. The available options are:
  - **WGS84:** the WGS84 datum
  - **OS (GB):** Ordnance Survey Great Britain
  - **OS (Ireland):** Ordnance Survey Ireland
  - **ED50 (Euro Mean):** the ED50 datum
  - **NAD27 (CONUS):** the NAD27 (CONUS) datum
- **Speed Units:** Sets speed units to **Knots** (nautical miles per hour), **mph** (statute miles per hour) or **kph** (kilometers per hour).
- **Distance Units:** Sets distance units to **Nautical Miles**, **Statute Miles** or **Kilometers**.
- **Altitude Units:** Sets altitude units to **Feet** or **Meters**. When feet are selected, all altitudes are reported in feet. When meters are selected, all altitudes are reported in meters.
- **Runway Length Units:** Sets runway length units to **Feet** or **Meters**. When feet are selected, runway lengths are reported in feet. When meters are selected, runway lengths are reported in meters.

- **Req Runway Surface:** The options are **Any** and **Hard Only**. The Required Runway Surface type is also used when using the DIRECT TO soft key to search for the nearest airports in VFR Moving Map mode. When runway surface is set to ANY, airports with either hard or soft runways are displayed. When surface is set to HARD ONLY, only airports with hard surface runways are displayed and soft-runway airports are ignored.
- **MIN R/W LENGTH:** This field contains the minimum length of the main runway at those airports that are included when the ten nearest airports are shown. Select the length field and use set the minimum length value. The available values are specified in steps of 100 feet from 0 to 16,000 feet or in steps of 50 meters from 0 to 4900 meters when the runway length units are set to meters. By setting a minimum length, airports with shorter runway lengths are not included in the search for the closest airport. To disable this filter set the minimum runway length to 00000 feet.

## MAP SETUP

The initial Map Systems Setup Options page allows different mapping options to be configured. Refer to Figure 2-197.



Figure 2-197: System Setup – Map System Setup Options

There are five groups of features for each of the map layers. They are: Common Features, Point Features, Line Features, Airspace and Overlay. Each shows in a tab across the top.

Tap the **SAVE & EXIT** soft key to save any changes and go back to the previous menu.

Tap the **EDIT** soft key to edit the data for the tabbed screen on top.

Tap the **RESET VALUES** soft key to set all options to their factory initial settings except Minimum Elevation when it is currently set to a valid value.

Tap on the **Common** tab to select the Common features that show below:

- **Orientation:** Sets the Map Mode presentation to either a TRACK UP or NORTH UP orientation.
- **Extended Track Line:** Turns the extended track line ON or OFF. The extended track line is drawn ahead of the aircrafts present position in the direction of the present track.
- **Range Rings On Map:** Controls the display of the range rings shown around the aircraft. OFF removes the rings. OUTER RING shows only the outer ring. OUTER AND INNER RING shows both rings.
- **Airport Label Format:** Labels airports in Map Mode either with their ICAO CODE, their FULL NAME (given airport name) or CITY NAME (local city name).
- **Auto Zoom:** Turns the auto zoom function ON or OFF. When flying the last leg of a Flight Plan or when flying a Direct To, the system automatically zooms to a screen range that keeps the destination WPT within the display area. The system continues to zoom in to the lowest zoom level. When the lowest zoom has been reached and the aircraft begins to fly away from the destination WPT, then the system zooms out automatically to keep the WPT within the display area. When auto zoom is in operation AUTO (Automatic) is shown in the RNG (Range) display field. Pushing either the ZOOM IN or ZOOM OUT soft key cancels the auto zoom capability. Auto zoom is re-activated in this menu.
- **Minimum Elevation:** Controls the high definition terrain contours minimum level elevation. When altitude units are set to meters the options are: SEA LEVEL, 300M, 500M, 900M and 1200M. When altitude units are set to feet, the options are: 1000ft, 2000ft, 3000ft and 4000ft.
- **Maximum Elevation:** Controls the high definition terrain contours maximum level elevation. The options are: 500M, 750M, 1000M, 1250M, 1500M, 1750M, 2000M, 2250M, 2500M, 3000M and MAXIMUM. When altitude units is set to feet, the options are:

1500ft, 2000ft, 2500ft, 3000ft, 4000ft, 5000ft, 6000ft, 7000ft, 8000ft, 9000ft and Maximum.

The **Point**, **Line**, **Airspace** and **Overlay** pages have the following four columns:

- Feature – Feature Description
- Icon/Style – A graphical representation of the Feature
- Max – The maximum range that the feature will show on the map. If the range on the selected map page is set higher than the Max setting, the feature does not show on the map page.
- Label - The maximum range that the label for the feature will show on the map. If the range on the selected map page is set higher than the Label setting, the label does not show on the map page.

The **ALL MAPS** soft key copies the settings of the features on the current tab to all available maps.

The **RESET VALUES** soft key resets the options on the page to the default value for each feature.

The **CHANGE MAP** soft key displays the list of map layers as shown in the figure below. Select the desired map or chart and then tap the **SELECT** soft key to select that layer and return to the Map Features page.



Figure 2-198: Map System Setup -- Select Map Layer

Tapping the **Point** tab displays the Point Feature Setup screen, as shown in the figure below.

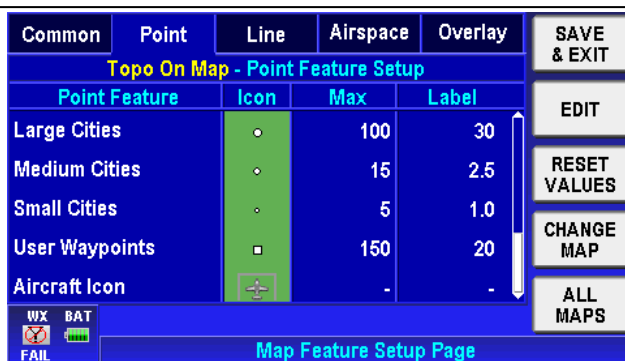


Figure 2-199: Map System Setup – Point Feature Setup

Tapping the **Line** tab displays the Line Feature Setup screen, as shown in the figure below.

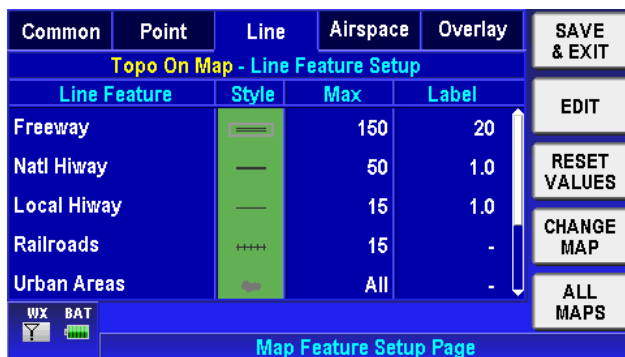


Figure 2-200: Map System Setup – Line Feature Setup

Tapping the **Airspace** tab displays the Airspace Setup screen, as shown in the figure below.

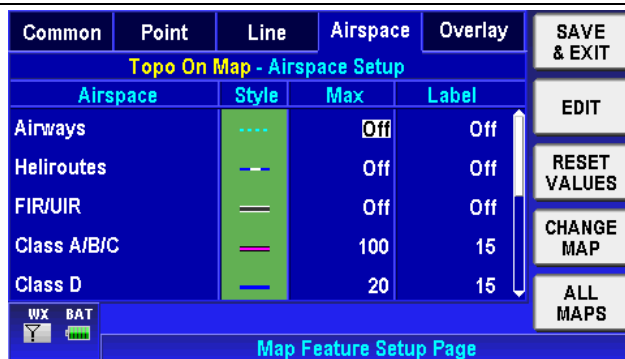


Figure 2-201: Map System Setup – Airspace Setup

Tapping the **Overlay** tab displays the Overlay Setup screen, as shown in the figure below.



Figure 2-202: Map System Setup – Overlay Setup 1

To change values, double tap the highlighted value item or tap once on the item to highlight it and then tap on the **Edit** soft key and a pop up window shows the possible values that can be set. Highlight the desired value and double tap it or tap the **Select** soft key to finish the change. Tap the **SAVE & EXIT** soft key to return to the previous menu.



## NAVIGATION SETUP

The Navigation Setup page permits the navigation setup options to be configured, as shown in the figure below.

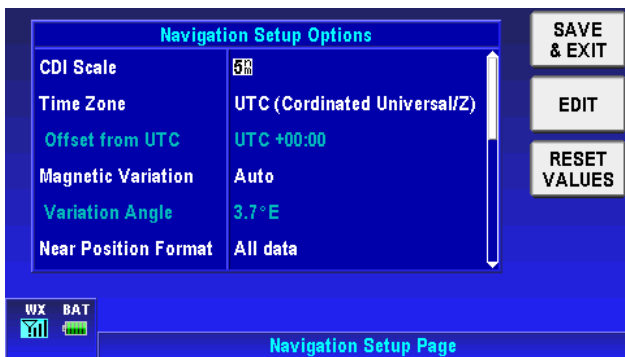


Figure 2-203: System Setup – Navigation Setup

Tap the **SAVE & EXIT** soft key to save any changes. Tap the **RESET VALUES** soft key to restore most of the values to their factory initial settings.

Double tap on an option or tap once on an option to highlight it and then tap on the **EDIT** soft key to display a pop up window to show the possible values that can be set. Double tap the highlighted value or highlight the value and tap on the **SELECT** soft key to change the item's values.

- **AutoNav:** Enable the AutoNav function to allow AV8OR to automatically switch between the external and internal GPS sources when there is more than one source. The AutoNav option only shows on the **Navigation Setup Page** when both the Navigation Source and Position in the **Device Setup Page** are set to **External**.
- **CDI Scale:** Sets the full scale deflection of any displayed Course Deviation Indicator (CDI) to: 0.6, 2 or 10 kilometers, 0.3, 1, or 5 nautical miles or 0.4, 1 or 5 statute miles. Values are based on the distance units that are configured in the General System Setup Options table distance units field. The CDI is configured on the Data Field Setup Page in System Setup.

- **Time Zone:** The AV8OR has an on board clock that ensures the Estimated Time of Arrival (ETA) information presented is accurate. The time is stored in two summed parts as UTC (Universal Coordinated Time or Greenwich Mean Time) and as a Local Offset. The system Global Positioning System (GPS) acquires the correct UTC time at Power-up and maintains it accurately. The following Time Zone value can be set:
  - LCL (Local Time) Offset from UTC – user configurable offset from UTC User defined
  - UTC (Universal Time) Offset from UTC 0:00
  - GST (Greenland Standard Time) Offset from UTC - 3:00
  - GDT (Greenland Daylight Saving Time) Offset from UTC -2:00
  - ATS (Atlantic Standard Time) Offset from UTC -4:00
  - ATD (Atlantic Daylight Saving Time) Offset from UTC -3:00
  - EST (Eastern Standard Time) Offset from UTC -5:00
  - EDT (Eastern Daylight Saving Time) Offset from UTC -4:00
  - CST (Central Standard Time) Offset from UTC -6:00
  - CDT (Central Daylight Saving Time) Offset from UTC -5:00
  - MST (Mountain Standard Time) Offset from UTC - 7:00
  - MDT (Mountain Daylight Saving Time) Offset from UTC -6:00
  - PST (Pacific Standard Time) Offset from UTC -8:00
  - PDT (Pacific Daylight Saving Time) Offset from UTC -7:00
  - AKS (Alaska Standard Time) Offset from UTC -9:00
  - AKD (Alaska Daylight Saving Time) Offset from UTC -8:00
  - HAS (Hawaii Standard Time) Offset from UTC - 10:00
  - HAD (Hawaii Daylight Saving Time) Offset from UTC -9:00
  - SST (Samoa Standard Time) Offset from UTC - 11:00
  - SDT (Samoa Daylight Saving Time) Offset from UTC -10:00

- **Offset from UTC:** If the user sets Time Zone as Local, the Offset from UTC column can be configured. This method permits offsets of hours and 30-minute increments.
- **Magnetic Variation:** Settings are Auto or Manual. When set to auto the magnetic variation is derived from the GPS location. When set to manual the variation angle is entered in the line below by moving the cursor to the left, then down and then to the right to highlight the angle value field. The angle range is from 0 to 180 degrees.
- **Near Position Format:** All Data, Airports / (Very high frequency Omni-directional Radio range (VOR)s, or VORs Only).
- **Turn Anticipation:** ON or OFF. Turn Anticipation assists navigation for a fixed wing aircraft along a curved path segment to ensure a smooth transition between two adjacent legs in the flight plan using a standard rate turn.
- **SUA Buffer:** The SUA altitude buffer is set from 500 to 16000 feet in 100-foot increments.
- **SUA Alerting:** Special Use Airspace (SUA) Alerting is turned ON or OFF. When SUA Alerting is turned on, a SUA alerting message shows when the aircraft is within the SUA alert zone.
- **SUA Display Filtering:** Special Use Airspace (SUA) Display Filtering is turned ON or OFF.
- **VSD (Smart Profile) Swath Distance:**
  - For Nm: 0.1 to 1.0 nm adjustable in 0.1 nm increments, using the numeric keyboard (default = 0.5 nm)
  - For sm: 0.1 to 1.0 sm adjustable in 0.1 sm increments, using the numeric keyboard (default = 0.6 sm)
  - For km: 0.2 to 2.0 km adjustable in 0.2 km increments, using the numeric keyboard (default = 1.0 km)
- **VSD (Smart Profile) Above Aircraft:**
  - For Feet: 0500 to 2000 ft adjustable in 100 ft increments using the numeric keyboard (default = 1000 ft)
  - For Meters: 150 to 600 .m adjustable in 50 m

increments using the numeric keyboard (default = 300 m)

- **VSD (Smart Profile) Below Aircraft:**
  - For Feet: 500 to 10000 ft adjustable in 100 ft increments using the numeric keyboard (default = 2000 ft)
  - For Meters: 150 to 3000 m adjustable in 50 m increments using the numeric keyboard (default = 600 m)
- **Direct-To-Mode:** Leg (default) and Target.
- **Default Fuel Flow:** 0.1 to 999.9 /hr, adjustable by 0.1 (8.0 default).
- **Default Ground Speed:** 0 to 999 kts, adjustable by 1 (135 kts default).

## DATA FIELD SETUP

This setup permits the user to arrange data windows along the left edge of the display in any order as shown in the figure below. The left edge allows 4 visible data windows. 5 more data windows may be shown by panning the data windows up or down.

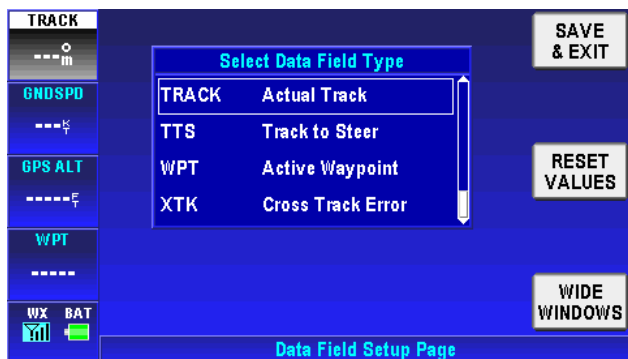


Figure 2-204: System Setup – Data Field Setup

How to configure the Data Field windows:

1. Tap and highlight the desired left data window to modify the data field type. Note that the corresponding window in the **Select Data Field Type** table is also identified. The title of the selected active data window is highlighted in white with black lettering, and the data window is highlighted in shades of grey.

2. Drag the scroll bar to up and down to select the desired new data field type. The abbreviation of the selected data type will be displayed in the highlighted left data field window along with its present value.
3. Tap and highlight the left data window, the new data window configuration is completed.
4. Repeat 1 through 3 for each data field window to be changed.
5. Totally 21 data field types can be selected, they are:
  - BRG: Bearing to WPT
  - CDI: Deviation Indicator
  - DIS: Distance to WPT
  - DEP TIME: Departure Time
  - DTK: Desired Track
  - ESA: En Route Safe Altitude
  - ETA WPT: Est. Time Of Arrival
  - ETE WPT: Est Time En Route
  - FLT TIME: Flight Time
  - GNDSPD: Ground Speed
  - GPS ALT: GPS Altitude
  - MSA: Minimum Safe Altitude
  - NEAR POS: Near Position Display
  - PPOS: Present Position
  - STP WTCH: Stop Watch
  - TIME: Time
  - TKE: Track Angle Error
  - TRACK: Actual Track
  - TRAFFIC: Traffic Mini-Targets
  - TTS: Track to Steer
  - WPT: Active WPT
  - XTK: Cross Track Error

**WIDE WINDOWS** soft key controls the width of the data windows. Tap the **WIDE WINDOWS** soft key to expand the width of the data field windows to make long labels in the windows more readable. The **WIDE WINDOWS** soft key changes to **NARROW WINDOWS** when the windows are set to **WIDE WINDOWS** as shown in the figure below.

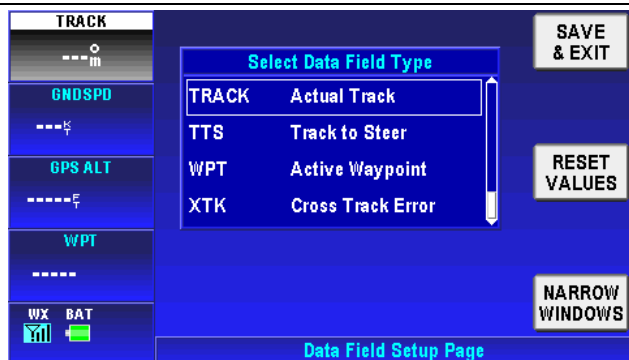


Figure 2-205: System Setup – Wide windows Data Field

Tap the **RESET VALUES** soft key to set all option to their factory defaults.

## FLIGHT PLAN DATA SETUP

Flight Plan Data Setup page allows the user to set up the headers for the flight plan in the flight planning section.

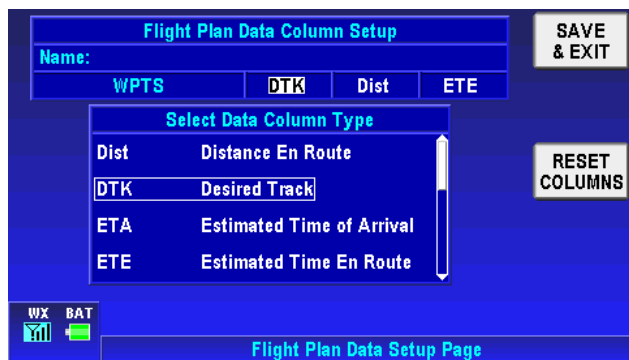


Figure 2-206: System Setup – Flight Plan Data Setup

The 'Flight Plan Data Column Setup' table displays the current column headings for the flight plan data display. The 'Select Data Column Type' table defines the column headings that are available.

Tap on the 'Flight Plan Data Column Setup' table to highlight the desired configurable column, the corresponding column type is displayed with a white border box in the 'Select Data Column Type' table. Move the highlighted box to the desired new column heading the heading in the above table changes as the lower table highlight is moved.

Tap the **RESET COLUMNS** soft key to set the column heading to their factory defaults.

## DEMO MODE SETUP

The data in the Demo Mode Setup window Figure 2-207 is used to control the starting position, altitude, speed and initial track of the simulator. You must select **DEMO MODE** on initial turn on to show this menu selection. See the Demo Mode section on page 2-4 for instructions on how to enable Demo Mode.

Demo Mode Setup	
Ident	KIXD
Initial Position	N38°49.85 W094°53.42
Altitude	2000 F
Groundspeed	135 Kts
Track	033 °

SAVE & EXIT

RESTART DEMO

WX BAT

Demo Mode Setup Page

Figure 2-207: System Setup – Demo Mode Setup

Scroll up and down between the options, and set the values.

- Ident:** Use the **Ident** field to assign a name to the Initial Position (manual entry). Highlight the **Ident** and enter the Ident input entry, the virtual keyboard is displayed. Input the Ident name characters. The system will search for similar Ident names in the database based on the character being input, as shown in the figure below. As an example when the user inputs **LOS ANG**, the system will display similar Ident names such as **LOS ANGELES/VAN NUYS**. This function is convenient for the user by finishing the input of the full Ident name. The user can also define a new name for the Ident.



Figure 2-208: System Setup – Demo Mode Setup Ident Settings

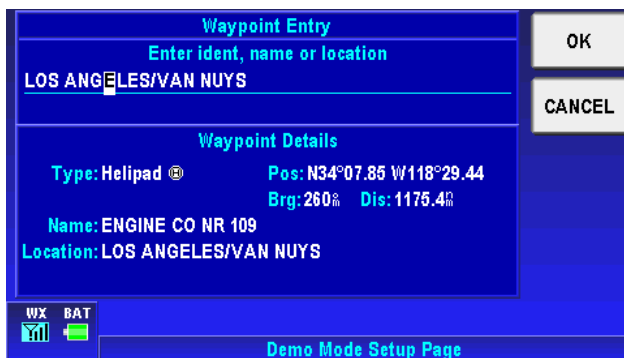


Figure 2-209: System Setup – Demo Mode Setup Ident Details

- **Initial Position:** Determines the latitude and longitude of where the simulator flight starts. The user can input the latitude and longitude.
- **Altitude:** The simulator's altitude can be set to any altitude between 0 and 99900 feet in 100-foot increments or between 0 and 30500 meters in 100-meter increments.
- **Groundspeed:** The simulator's speed can be set to any value between 0 and 999 in any of the selected speed units.
- **Track:** Set the initial track from the initial WPT. Track can be set to any value between 0 and 359 degrees.

When all the parameters have been entered tap the **RESTART DEMO** soft key to restart the simulator and return to the System Setup Menu.



## DEVICE SETUP PAGE

This page lets the user to configure the external interfaces (GPS Receiver, Flight Plan Device, and WX Receiver) to the unit.

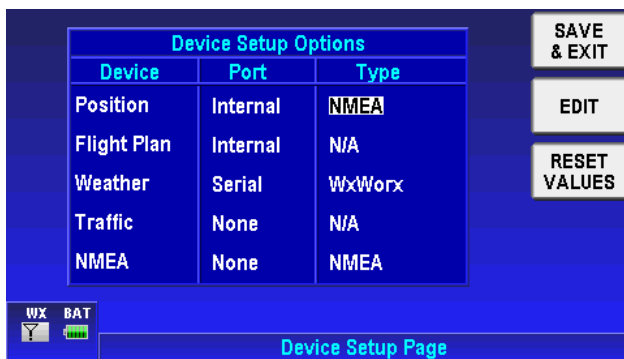


Figure 2-210: System Setup – Device Setup Menu

The Position Device port has the following Port options:

- Internal (Default value)
- Serial
- Bluetooth

The Position Device can be configured as either NMEA (default value) or AR-NAV.

The Flight Plan Device has the following Port options:

- Internal (Default value)
- External

The Flight Plan Device receives data in the following Type formats:

- N/A (Default value)
- NMEA
- AR-NAV
- ENH AR-NAV (Enhanced) allows arcs to be drawn in flight plan

The Weather Device has the following Port options:

- None
- Serial (Default value)
- Bluetooth

The Weather Device receives data in the following Type formats:

- N/A
- WxWorx (Default value)

- KDR-610

The Traffic Device has the following Port options:

- None (Default value)
- Serial
- Bluetooth

The Traffic Device receives data in the following Type formats:

- N/A
- ZAON Traffic

<sup>1.</sup> The NMEA Device has the following Port options:

- None (Default value)
- Serial

<sup>2.</sup> The NMEA Device receives data in the following Type format:

- NMEA (Default value)

## STATUS PAGE

From the **System Setup Menu**, tap the **STATUS PAGE** soft key to access the System Status Menu page, as shown in the figure below.

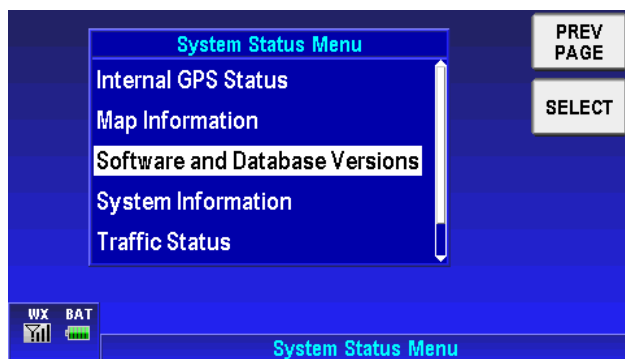


Figure 2-211: System Setup – Status Page

The System Status Menu page gives information about:

- Internal GPS Status
- External Position Source Status
- Map Information
- Software and Database Versions
- System Information

- Traffic Status
- XM Weather Status

**Internal GPS Status:** The Internal GPS Status Page shows the GPS status in two tables, as shown in the figure below. The first table shows the GPS receiver status. The second table shows the GPS satellite status for those that should be in view.

Internal GPS Status		PREV PAGE
State	3D Nav	
Position	N38°56.26 W094°51.41	
Altitude	1056 f	
Time	09 JUL 2008 21:32:54 Z	
DOP	8.0	
Satellite Tracking		
SV#	13 25 23 03 07 06 19 27 16 08 20 10	
Track	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	
Signal	39 40 44 35 42 00 37 39 00 47 27 00	
Elev	72 63 61 61 45 43 40 38 25 12 01 00	
Internal GPS Status Page		

Figure 2-212: System Setup – Internal GPS Status

**External Position Source Status:** The External Position Source Status page displays the reported status of the external GPS receiver. (Only available if an external position source is configured) The Communication Status window is updated regularly.

External Position Source Status		PREV PAGE
Position	N38°56.26 W094°51.41	
Track	000 °	
Ground Speed	0 mph	
Communication Status		
Receiving Data	✓	
Receiving Valid Data	✓	
External Position Source Status Page		

Figure 2-213: System Setup – External GPS Status

**Map Information:** The Common Map Data Sources Page shows the sources of the map data for the cartography, terrain and aeronautical data bases as shown in the figure below.

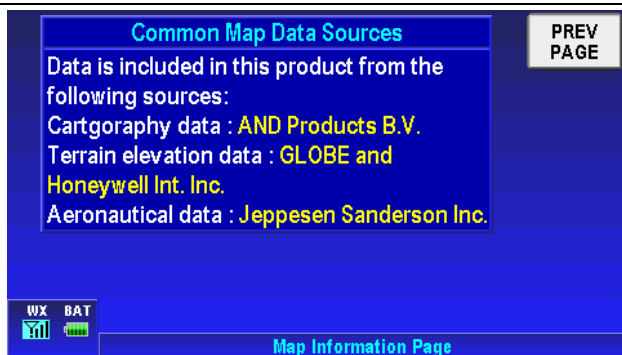


Figure 2-214: System Setup – Common Map Data Sources

**Software and Database Versions:** The Software and Database Versions Page shows the software status in tables, as shown in Figure 2-215. The software table shows the application name, build status and operating system number. Databases table shows the Region, the Aeronautical part number, the Expiration date, the Cartography number and the Topography number.



Figure 2-215: System Setup – Software and Database Version

**System Information:** This page shows the system status and event codes as follows:

- **Flight Log Start Time:** The UTC time at the beginning of the flight.
- **Flight Log End Time:** The UTC time at the end of the flight.
- **Run Time:** The total time of the flight.
- **Cycles:** The number of power cycles.

- **Event Codes:** A list of Events.

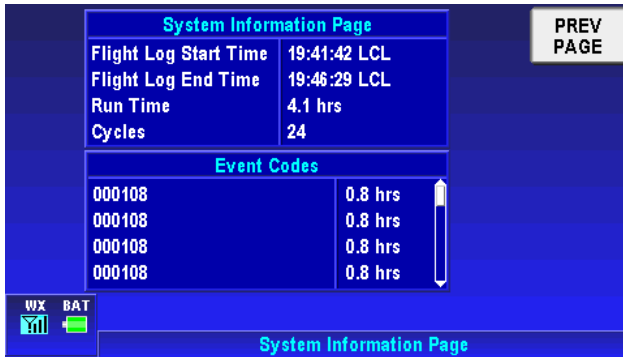


Figure 2-216: System Information Page

**Traffic Status:** The Traffic Status Page shows the status of the external traffic receiver, as shown in the figure below.

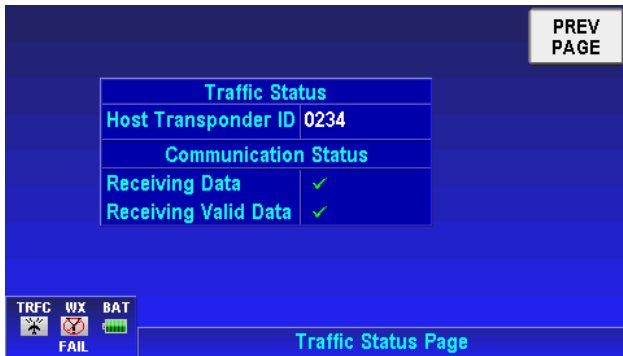


Figure 2-217: Traffic Status Page

The Id and the communication status of the traffic device are shown.

**Weather Status:** The Weather Status Page shows status of the external weather receiver, as shown in the figure below.

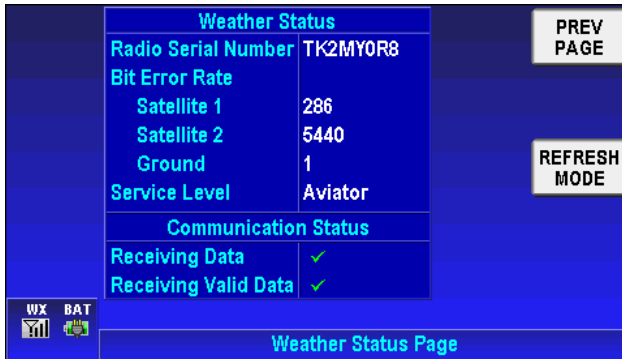


Figure 2-218: System Setup – Weather Status Page

The Weather Status column has the following fields:

- Radio Serial Number – The ID of the XM receiver
- Bit Error Rate – The rate of errors being received. The bit error rate for at least the ground station of one of the satellites needs to be below 60 to get a good signal.
- Service Level – The subscription level of service that the customer has purchased.

The Communication Status column has the following fields:

- Receiving Data – A check mark indicates that data (communication) is being received from the XM receiver. A red “X” indicates that data is not being received.
- Receiving Valid Data - A check mark indicates that valid data (processed and useable weather data) is being received from the XM receiver. A red “X” indicates that received data is not valid.

**NOTE:** *If a green check mark is displayed under “Receiving Data” and a Radio Serial number is displayed, then there is valid communication between AV8OR and the weather receiver. A red X under “Receiving Valid Data” indicates a critical problem. It could mean a subscription problem (try the Refresh Mode update procedure listed below) or a weather receiver failure.*

When the XM receiver is first powered up, it may take 15 seconds or longer to see the following indications:

- The bit error rates drop down (the lower the better)
- The service level displays on the page
- The "Receiving Valid Data" goes green
- The WX icon in the lower left hand status window displays the signal strength.



The bars on the WX icon in the status window show the strength of the incoming weather satellite signal.

- Three bars indicates the strongest signal. All available WX products will be received for the subscription level that has been purchased.
- Two bars indicates marginal reception. The NEXRAD weather product may not be displayed.
- One or no bars indicates that signal strength is too low to receive weather product data.

### Refresh Mode

**NOTE:** *The **REFRESH MODE** soft key is only available when "WxWorx" is set as the Weather Type on the Device Setup Page.*

The **REFRESH MODE** soft key provides the user with an easy method to activate the WxWorx receiver.

Activation should only be necessary when the user is attempting to use the receiver for the first time, the user has changed subscription levels or the WxWorx receiver has become deactivated for any reason.

To begin the activation process, the user either contacts WxWorx technical support or uses their website. After all of the appropriate data has been submitted or entered, the XM system will transmit an activation message within the next 3 hours.

Tapping the **REFRESH MODE** soft key causes the AV8OR to send commands to the WxWorx receiver that forces it into the activation mode as long as the user remains on this page or taps the **NORMAL MODE** soft key. When a Service Level is displayed, the activation has been successfully completed.

Tap the **PREV PAGE** soft key to return to the System Status Menu.

## NMEA OUTPUT SETUP

The NMEA interface is a standard that was developed to allow data communication between electronic instruments, navigation equipment and communications equipment.

The NMEA standard uses a simple ASCII, serial communications protocol that defines how data is transmitted in a "sentence" from one "talker" to one "listener" at a time.

AV8OR outputs a user selectable subset of the most common navigation NMEA sentences through the RS-232 port on the mini-USB port when configured properly.

### CAUTION

**The NMEA sentences supplied by AV8OR may not be the correct sentences for the all equipment that can receive NMEA sentences.**

**Even though NMEA outputs are intended for use with experimental aircraft only, Bendix King is not responsible for the correct operation of equipment that receives the NMEA output from AV8OR.**

The NMEA Output Setup page permits the NMEA setup options to be configured, as shown in the figure below.

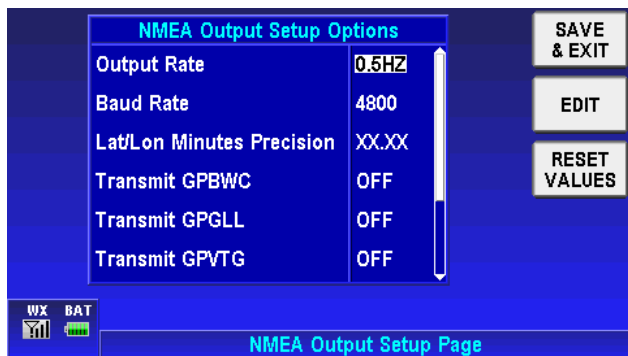


Figure 2-219: NMEA Output Setup Page

When using the NMEA output to talk to another device, refer to the user guide for the device for the correct NMEA setup.



Tap the **SAVE & EXIT** soft key to save any changes.

Tap the **RESET VALUES** soft key to restore the values to their factory initial settings.

Double tap on an option or tap once on an option to highlight it and then tap on the **EDIT** soft key to display a pop up window to show the possible values that can be set. Double tap the highlighted value or highlight the value and tap on the **SELECT** soft key to change the item's values.

NMEA Output Setup Options:

**Output Rate:** The **Output Rate** sets the frequency that AV8OR sends a NMEA sentence per second. The **Output Rate** has the following options:

- 0.5 HZ (Default value)
- 1 HZ

**Baud Rate:** The **Baud Rate** has the following options:

- 4800 (Default value)
- 9600

**Lat/Lon Minutes Precision:** The **Lat/Lon Minutes Precision** has the following options:

- XX.XX (Default value)
- XX.XXX
- XX.XXXX

**Transmit Default NMEA Sentences:**

The following sentences are always available for transmission when NMEA output is selected in the **Device Setup** page:

- **GPGGA::** Global Positioning System Fix Data
- **GPRMB::** Recommended Minimum Navigation Data
- **GPRMC::** Recommended Minimum Specific GNSS Data

**Transmit Selected NEMA Sentences**

The following sentences can be selected to be included for transmission when NMEA output is selected in the Device Setup page:

**Transmit GPBWC:** Bearing and Distance to Waypoint

The sentence has the following options:

- OFF (Default value)
- ON

**Transmit GPGLL:** Geographic Position – Latitude/Longitude

The sentence has the following options:

- OFF (Default value)
- ON

**Transmit GPVTG:** Course over Ground and Ground Speed

The sentence has the following options:

- OFF (Default value)
- ON

**Transmit GPXTE:** Measured Cross-Track Error

The sentence has the following options:

- OFF (Default value)
- ON

**Transmit GPGSA & GPGSV:** GNSS DOP and Active Satellites, GNSS Satellites in View

The sentence has the following options:

- OFF (Default value)
- ON

**Transmit GPWPL & GPRTE:** Waypoint Location, Routes

The sentence has the following options:

- OFF (Default value)
- ON

**Transmit GPBOD:** Bearing and Origin to Destination

The sentence has the following options:

- OFF (Default value)
- ON

## Shut Down


Tap the  soft key on the Aviation Main Menu page to go to the Program Close page as shown in the figure below.



Figure 2-220: Exit Go Fly Warning Screen

Tap on the **YES** soft key to exit from the program or tap the **NO** soft key to stay in the program

If you tap the **YES** soft key, the Go Fly program is halted and a "Go Fly is exiting" message is displayed as shown in the figure below.

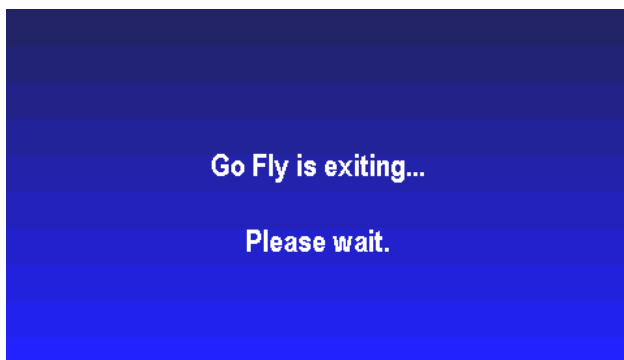


Figure 2-221: Go Fly exit screen

***This Page  
Intentionally Left Blank***

### 3. AUTOMOTIVE MODE OPERATION

#### WARNINGS AND SAFETY INFORMATION

**GoDrive** is a navigation system that helps you find your way to your destination with a connected GPS receiver. **GoDrive** does not transmit your GPS position; others cannot track you.

It is important that you look at the display only when it is safe to do so. If you are the driver of the vehicle, we recommend that you operate **GoDrive** before you start your journey. Plan the route before your departure and stop if you need to change something in the route.

**GoDrive** has a Safety Mode: if you turn on Safety Mode, you cannot change anything in **GoDrive** while the vehicle is moving at a speed of 6 mph (10 km/h) or higher. Unless only passengers operate **GoDrive**, we strongly encourage you to turn on Safety Mode.

You must obey the traffic signs and follow the road geometry. If you deviate from the route that **GoDrive** recommended, **GoDrive** changes the instructions accordingly.

Never place mobile devices where it obstructs the driver's view, where it is in the deployment zone of an airbag or where it might cause injuries in an accident.

#### CAUTION

Leaving the unit and / or mounting bracket on the dashboard or attached to the windshield of a car with the windows closed on a hot day can cause damage to the unit and / or mounting bracket. The temperature in a closed car can exceed 70 deg C (158 deg F).

## Map Updates

Over time, roads and features change. To keep the GoDrive Map database up to date, map subscriptions are available from Nav-n-Go at **naviextras.com**. See the Subscriptions and Updates section on page 6-18 for more information.

## GLOSSARY

### 2D/3D GPS reception

The GPS receiver uses satellite signals to calculate its (your) position and need at least four signals to give a three-dimensional position, including elevation. Because the satellites are moving and because objects can block the signals, your GPS device might not receive four signals. If three satellites are available, the receiver can calculate the horizontal GPS position but the accuracy is lower and the GPS device does not give you elevation data: only 2D reception is possible.

### Active route

The Active route is the currently navigated route. You can save and load routes in **GoDrive**, but only one route can be active at any given time. It is always active until you delete it, reach your destination or you quit **GoDrive**. See also: Route.

### City Center

The City Center is not the geometric center of the settlement but an arbitrary point the map creators have chosen. In towns and villages, it is usually the most important intersection; in larger cities, it is an important intersection.

### GPS accuracy

Several factors have impact on the deviation between your real position and the one given by the GPS device. For example, signal delay in the ionosphere or reflecting objects near the GPS device have a different and varying impact on how accurately the GPS device can calculate your position.

### Map

**GoDrive** works with digital maps which are not simply the computerized versions of traditional paper maps. Similarly to the paper road maps, the 2D mode of digital maps show you streets, roads, and elevation is also shown by colors.

You can use digital maps interactively: you can zoom in and out (increase or decrease the scale), you can tilt them up and down, and

turn them left and right. In GPS-supported navigation, digital maps facilitate route planning.

### **North-up map orientation**

In North-up mode the map is rotated so its top always faces North. This is the orientation in 2D map view mode and in Overview mode. See also: Track-up map orientation.

### **Overview mode**

You can instruct **GoDrive** to automatically switch to Overview mode if the next route event is in a distance. In Overview mode the map is shown in 2D but scaled down to a predefined zoom level. When you approach the next route event, the previous 2D or 3D map view returns automatically.

### **Route**

A route is a series of destinations to be reached one after the other. A simple route contains one start point and only one destination. Multi-point routes contain one or more via points (intermediate destinations). The last route point is the final destination and the route is cut into different legs (from one destination to the next).

### **Scheme**

**GoDrive** comes with different color schemes for the map for daytime or night use. Schemes are custom graphic settings for the map and they can have different colors for streets, blocks or surface waters in 2D and 3D modes, and they display shades or shadows in different ways in 3D mode.

One daytime scheme and one night scheme is always selected. **GoDrive** uses them when it switches from day to night and back.

### **Track-up map orientation**

In Track-up mode the map is rotated so its top always points in the current driving direction. This is the default orientation in 3D map view mode. See also: North-up map orientation.

### **Road Safety Camera**

A special POI type exists for speed cameras and red light cameras. Different data sources are available, and you can also mark the position of a Road Safety Camera on the map.

You can configure **GoDrive** to warn you when you approach one of these cameras.

## GETTING STARTED


From the Main Menu (refer to Figure 3-1), tap the  soft key to start the **GoDrive** Automotive Navigation program.



Figure 3-1: AV8OR Main Menu

When **GoDrive** is started the first time, you need to do the following:

- Select the written language of the application. Later you can change it in the Settings Menu section.
- Select the language and speaker used for voice guidance messages. Later you can change it in Settings Menu section.
- Select whether to start the program in “Simple” mode or in “Advanced” mode. Later you can switch between the two operating modes in Settings Menu section.

After this, the Navigation menu appears and you can start using **GoDrive**. Figure 3-2 displays the Navigation menu in Simple mode.





Figure 3-2: Simple Mode

Figure 3-3 displays the Navigation menu in Advanced mode:



Figure 3-3: Advanced Mode

The typical way of using **GoDrive** is to select a destination, and start navigating. You can select your destination in the following ways (not all of them are available in Simple mode):

- Use the selected location on the map.
- Enter a full address or a part of an address, for example a street name without a house number or the names of two intersecting streets.
- Enter an address with postal code. This way you do not need to select the name of the settlement and the search for street names might be faster as well.
- Use a coordinate.

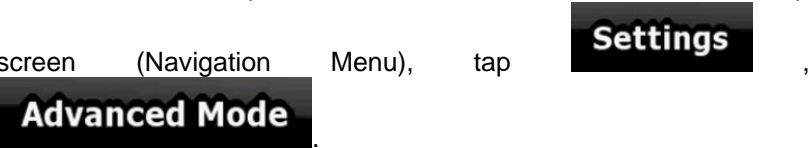
- Use a saved location:
  - A Favorite
  - A POI
  - The History of previously set destinations and waypoints.

Simple and Advanced modes

The two operating modes of **GoDrive** mainly differ in the menu structure and the number of available features. The controls and screen layouts are the same.

- **Simple mode:** you have easy access to the most important navigation functions and the basic settings only. The rest of the settings are set to values that are optimal for typical use.
- **Advanced mode:** you have access to the full functionality of **GoDrive**.

To switch from Simple mode to Advance mode: on the startup



To switch from Advanced mode Simple mode on the startup screen



The features and settings available in each mode are as follows:

Table 3-1: Simple Mode versus Advanced Mode

Type of action	Available in Simple mode	Available in Advanced mode
Navigating to a selected map point	Yes	Yes
Navigating to a street address	Yes	Yes
Navigating to an	Yes	Yes

<b>Type of action</b>	<b>Available in Simple mode</b>	<b>Available in Advanced mode</b>
incomplete address		
Navigating to an intersection	Yes	Yes
Navigating to recent destinations (History)	Yes	Yes
Navigating to Favorites	Yes	Yes
Navigating to a POI	Yes	Yes
Navigating to coordinates	No	Yes
Creating a multi-point route	No	Yes
Saving a map point as a Favorite destination	Yes	Yes
Saving a map point as a POI	No	Yes
Saving a map point as a location of a Road Safety Camera	No	Yes
Mark a map point with a Pin	No	Yes
Saving the active route	No	Yes
Saving Track Logs	No	Yes
Map Screen settings	No	Yes
Menu settings	Only background	Yes

Type of action	Available in Simple mode	Available in Advanced mode
	picture	
Sound settings	Only Master volume	Yes
Route Planning options	Yes	Yes
Regional settings	Only language selection	Yes
Warnings	No	Yes

## Soft Keys and Controls on the screen

You only need to confirm selections or changes in **GoDrive** if the application needs to restart, it needs to perform a major reconfiguration, or you are about to lose some of your data or










settings. Otherwise,  saves and applies the new settings immediately.

Table 3-2: Soft keys and controls on the screen

Type	Example	Description	How to use it
Soft Key		Tap it to initiate a function, to open a new screen, or to set a parameter.	Tap it once.





Type	Example	Description	How to use it
Icon		Shows status information.	Some icons also function as a soft Key. Tap them once.
List		When you need to select from several options, they appear in a list.	Turn the page with the  and  soft Keys and tap the value that you want.
Slider		When a feature has several different unnamed values, <b>GoDrive</b> shows an indicator on a gauge that displays and sets a value from a range.	<ul style="list-style-type: none"> <li>• Drag the handle to move the slider to its new position.</li> <li>• Tap the slider where you want the handle to appear; the thumb jumps there.</li> </ul>





Type	Example	Description	How to use it
Switch		When there are only two choices, a checkmark shows whether the feature is enabled.	Tap it to turn the switch on or off.
Virtual keyboard		Alphabetic and alphanumeric keyboards to enter text and numbers.	Each key is a touch screen soft Key.

USING KEYBOARDS

You only need to enter letters or numbers in **GoDrive** when you cannot avoid it. You can type with your fingertips on the full-screen keyboards and you can switch between various keyboard layouts, for example ABC, QWERTY, or numerical.




Table 3-3: Using Keyboards











Task	Details
Switching to another keyboard layout, for example from a Latin QWERTY keyboard to a Greek keyboard	 Tap  and select from the list of available keyboard types.
Correcting your entry on the keyboard	Remove the unneeded character(s): tap  Tap  and hold the soft Key to delete the entire input string.

Entering a space, for example between a first name and a family name or in multi-word street names	Tap  .
Entering small or capital letters	Tap  to cycle through entering lower case letters, capital initials or all capitals.
Entering symbols	Tap  to switch to a keyboard of symbol characters.
Finalizing the keyboard entry	Tap  .

## ADDITIONAL CONTROLS

Table 3-4: Additional Controls

Tasks	Instructions
Tapping and holding the screen	<p>You do not need this to access the basic navigation functions. Tap and keep pressing the following soft Keys to reach extra functions:</p> <ul style="list-style-type: none"> <li>Tap and hold  on the Map screen: you can set the minimum and maximum zoom level of Smart Zoom.</li> <li>Tap and hold any of the  soft Keys on the Map screen: you can set or reset the zoom value of the soft Key (2D map).</li> <li>Tap and hold any of the  soft Keys on the Map screen: you can set or reset the tilt and zoom</li> </ul>

Tasks	Instructions
	<p>values of the soft Key (3D map).</p> <ul style="list-style-type: none"><li>• Tap and hold  on list and menu screens: the Navigation menu appears.</li></ul>
Additional Tapping and holding screen functions	<p>Tap and hold any of the       soft Keys on the Map screen: you can rotate, tilt or scale the map continuously.</p> <ul style="list-style-type: none"><li>• Tap and hold  on keyboard screens: you can delete several characters quickly.</li><li>• Tap and hold  or  in long lists: you can turn the page continuously.</li><li>• Tap and hold the soft Keys in the Quick menu to open screens from the Manage menu or the Settings menu related with the function of the soft Key.</li><li>• In portrait screen orientation there are symbols (instead of labels) on the soft Keys at the bottom of the screen. Tap and hold any of these soft Keys, and its name pops up at the center of the screen.</li></ul>
Gestures (drag & drop)	<p>You do not need gestures to access the basic navigation features. You need to drag and drop the screen only in cases like:</p> <ul style="list-style-type: none"><li>• Moving the handle on a slider.</li><li>• Moving the map: grab the map, and move it in the desired direction.</li><li>• Shortcut to open the Map screen: slide your finger from the bottom right corner to the</li></ul>



Tasks	Instructions
	<p>bottom left corner on any screen.</p> <p>Shortcut to open the Navigation menu: slide your finger from the top left corner to the bottom left corner on any screen.</p>

## USING THE MAP

The map screen is the most frequently used screen of **GoDrive**. It can be accessed from the Navigation menu by tapping

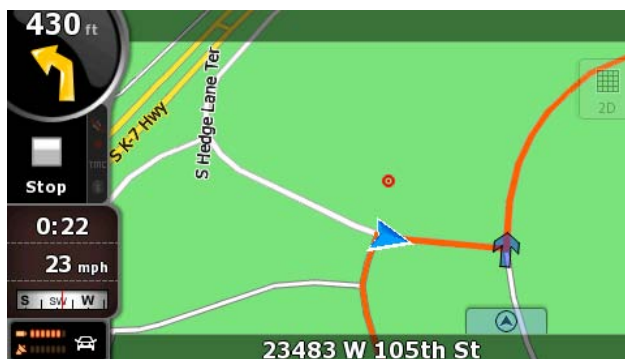



Figure 3-4: Map Screen

For further information about the map screen, refer to the Map Screen section.

## CHECKING THE DETAILS OF A MAP LOCATION


- If you are interested in the details of your current position during navigation:
  - Check the bottom line of the map. It shows the current street and house number information.
  - For further details, tap  to open the Position menu.




3. Tap The address, the coordinate and the list of nearby POIs will be displayed.

You can check the details of any other location by selecting it on the map:

1. Tap the map anywhere to open the map control soft Keys.

2. Tap the desired location on the map. The Cursor (  )

3. For Further details, tap  to open the Cursor menu.



4. Tap The address, the coordinate and the list of nearby POIs will be displayed.

It is even easier if you select the desired point in the Find menu. Then the Cursor menu opens automatically. You only need to tap the




soft Key.

MANIPULATING THE MAP

Position markers on the map:







Current GPS position:










Selected location (Cursor): 

The following controls help you modify the map view to best suit your actual needs. Most of these controls appear only if you tap the map once, and disappear after a few seconds of inactivity.

Table 3-5: Controls to manipulate the Map

Action	Soft Key(s)	Description
--------	-------------	-------------



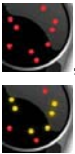
Action	Soft Key(s)	Description
Moving the map with drag & drop	No soft Keys	<p>You can move the map into any direction: tap and hold the map, and move your finger to the direction in which you want to move the map.</p> <p>If GPS position is available and you have moved the map,</p>  <p>the soft Key appears. Tap this soft Key to return to the GPS position.</p>
Opening/closing map control soft Keys		<p>Tap this soft Key to show or hide the following map control soft Keys:</p> <ul style="list-style-type: none"> <li>• Zoom in/out</li> <li>• Rotate left/right (3D map only)</li> <li>• Tilt up/down (3D map only)</li> <li>• Zoom preset soft Keys (2D map only)</li> <li>• Tilt and zoom preset soft Keys (3D map only)</li> <li>• Return to GPS position soft Key Smart Zoom soft Key</li> </ul>
Zooming in and out	 	<p>Changes how much of the map is displayed on the screen. <b>GoDrive</b> uses high-quality vector maps that let you see the map at various zoom levels, always with optimized content. It always displays street names and other text with the same font size, never upside-down, and you only see the streets and objects that you need. Map scaling has different limits in 2D and in 3D</p>




Action	Soft Key(s)	Description
		map view modes.
Tilting up and down	 	Changes the vertical view angle of the map in 3D mode.
Rotating left and right	 	Changes the horizontal view angle of the map in 3D mode. When GPS position is available, <b>GoDrive</b> always rotates the map so its top faces your direction of travel (Track-Up orientation). You can turn away from Track-Up with these soft Keys. If GPS position is available and you have rotated the map, the  soft Key appears. Tap this soft Key to re-enable the automatic map rotation.
Viewing modes	 	Gives you the following map perspectives in <b>GoDrive</b> : <ul style="list-style-type: none"> <li>• classic top-down view (2D)</li> <li>• perspective view (3D) The value always shows the mode the soft Key switches to: If you are in 2D mode,  you can see  the soft</li> </ul>

Action	Soft Key(s)	Description
		Key and you need to tap it to switch to 3D mode.


## STATUS INFORMATION AND HIDDEN CONTROLS ON THE MAP




The following information appears in the rounded field in the top left corner, the Turn Preview field. When tapping this area, the result depends on the information currently shown.



Icon	Information	Details	Action
	There is no active route in Simple mode	If there is no route to be navigated in Simple mode, this icon appears in the Turn Preview field.	Tap this area to open Find Address.
	There is no active route in Advanced mode	If there is no route to be navigated in Advanced mode, this icon appears in the Turn Preview field	Tap this area to open Find.
	There is no valid GPS position.	If an active route exists, and there is no valid GPS position, the view of the sky above you is shown with colored dots for each satellite. Some dots need to turn green to be able to navigate.	Tap this area to open the Route Information screen.

Icon	Information	Details	Action
	If the icon is a static picture, route calculation is needed	GPS position and an active route are available, but automatic off-route recalculation is switched off, and you deviated from the route.	Tap this area to make <b>GoDrive</b> recalculate the recommended route.
	If the icon is animated, route, calculation is in progress	<b>GoDrive</b> is calculating or recalculating the route	Nothing happens if you tap this area of the screen
	Next route event (next maneuver)	GPS position and an active route are available, and you navigate the recommended route. This area gives you information about the type and distance of the next route event.	Tap this area to open the Route Information screen.







The following area appears next to the above described rounded area. When tapping this area, the result depends on the information currently shown.

Icon	Information	Details	Action
	There is no valid GPS position	If there is no valid GPS position, this symbol appears here.	Tap this area to open the GPS Data screen to check the signal status or


Icon	Information	Details	Action
			the connection settings.
	Traffic restriction	When GPS position is available, but there is no route to be navigated, the traffic restriction of the upcoming intersection is shown here if there is any	Nothing happens if you tap this area of the screen.
	Second route event (maneuver after the next maneuver)	When GPS position and an active route are both available, this field shows the route event that follows the next route event shown in the above described area.	Tap this area to open the Itinerary screen with the turn by turn guidance instructions.
	Approaching a Road Safety Camera	This icon appears when you are approaching a Road Safety Camera, and the warning for cameras is enabled in Settings.	Tap this area to suppress the audible camera warning.








Icon	Information	Details	Action
	Stops the running simulation	This icon appears during Route Fly Over, Route Simulation, and Track Log playback.	Tap this area to stop the simulation.
	Route recalculation progress	During route recalculation, this field shows the recalculation progress between 0% and 100%.	Nothing happens if you tap this area of the screen.

The following symbols appear in the Indicator strip:

Icon	Description
	The sound output of <b>GoDrive</b> is muted.
	The sound output of <b>GoDrive</b> is enabled.
	<b>GoDrive</b> records a Track log when GPS position is available.
	Track log recording is disabled.
	No TMC receiver is connected or TMC is turned off.
	TMC receiver is connected and a radio station with TMC broadcast is received.

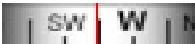

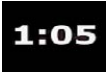



Icon	Description
	There are new, unread TMC events.


Icon	Description
	A part of the route is bypassed based on TMC events.
	A part of the route is mentioned in TMC events but could not be bypassed (for example, the destination is on a congested street).
	The Bluetooth radio is switched off.
	The Bluetooth radio is turned on, but no telephone is connected.
	There is an error in the Bluetooth connection.
	<b>GoDrive</b> is connected to a telephone as a hands free set via Bluetooth.
	A phone call is in progress over the Bluetooth connection.




The following information can be seen in the three data fields shown on the map screen. Tap this area to open the Trip Information screen where you can select which values to be shown in these three fields. When there is no active route, these fields show the following information: current speed, compass and the current time of day.

Icon	Type	More information
------	------	------------------

Icon	Type	More information
	Compass	Shows the direction of your heading both when the map is automatically rotated (3D) and when the map is always facing North (2D).
	Speed information	There are speed values that can be shown: <ul style="list-style-type: none"> <li>• Current speed</li> <li>• Speed limit on the current road</li> </ul>
	Time information	There are time values that can be shown: <ul style="list-style-type: none"> <li>• Current GPS time</li> <li>• Time remaining to reach the destination</li> <li>• Time remaining to reach the next via point</li> <li>• Estimated arrival time at the destination</li> <li>• Estimated arrival time at the next via point</li> </ul>
	Distance information	There are distance type values that can be shown: <ul style="list-style-type: none"> <li>• Distance remaining to reach the destination</li> <li>• Distance remaining to reach the next via point</li> <li>• Current altitude</li> </ul>

The next area is a combined status field. Tap this area to open the Quick menu (Refer to Figure 3-13: Quick Menu).

Icon	Status for	More information
	GPS position quality	The more lit bars, the better is the GPS position.

Icon	Status for	More information
	Battery status	The device is running on battery power. The number of lit bars represent the remaining capacity.
	The battery is being charged	The device is running on external power. The battery is being charged.
	Vehicle type	The symbol displays the vehicle type used for route calculation.

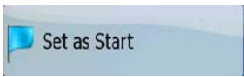

## USING THE CURSOR (THE SELECTED MAP LOCATION)









First, place the Cursor at the desired map location with one of the following options:

- Use the Find menu to select a location. The map returns with the selected point (the Cursor) in the middle, and the Cursor menu appears with the available options.
- Tap the screen and tap again to place the Cursor at the desired

location. Now tap  to open the Cursor menu.

You can perform the following actions:

Soft Key	Action
	In the active route, uses the Cursor as the start point by replacing the current GPS position (available in Advanced mode only)
	In the active route, uses the Cursor as the destination by replacing the previous destination

Soft Key	Action
 Insert as Via	In the active route, uses the Cursor as a via point (an intermediate destination) preceding the destination (available in Advanced mode only)
 Continue	In the active route, uses the Cursor as the destination while keeping the previous destination as a via point (available in Advanced mode only)
 Routing Methods	Shows the different routes calculated by the available routing methods. Choose the one that suits your needs the best.(available in Advanced mode only)
 Save as POI	Saves the Cursor as a POI(available in Advanced mode only)
 Add to Favourites	Saves the Cursor as a Favorite location
 Save as Camera	Saves the Cursor as a Road Safety Camera location (available in Advanced mode only)
 Place Pin	Marks the map with a Pin at the Cursor (available in Advanced mode only)
	Opens a screen with the name, address and coordinate information of the Cursor, and the list of POIs near it

## Advanced Functions

### SMART ZOOM

Smart Zoom is a lot more than just a usual automatic zoom:

#### While following a route calculated by GoDrive:

When approaching a turn, it will zoom in and raise the view angle to let you easily recognize your maneuver at the next junction. If the next turn is at a distance, it will zoom out and lower the view angle to

be flat so you can see the road in front of you.

### **While driving without an active route in GoDrive:**

Smart Zoom will zoom in if you drive slowly and zoom out to the limit set here when you drive at high speed.

### **Enabling Smart Zoom**

Tap the map to let the map control soft Keys appear, and then tap



to enable Smart Zoom.

### **Fine-tuning Smart Zoom**

Tap the map to let the map control soft Keys appear, and then tap



and hold to open the Smart Zoom Settings window. Modify the zoom limits of Smart Zoom if necessary.

## **POSITION MARKERS**

### **CURRENT GPS POSITION AND LOCK-ON-ROAD**

When your GPS position is available, **GoDrive** marks your current



position with the icon on the map. The exact location of the position marker depends on the vehicle type used for route calculation.

The vehicle type can be selected in Route settings or in the Quick Menu.



- If you choose pedestrian: The icon is at your exact GPS position. The direction of the icon shows your actual heading.



- If you choose any of the vehicles: The icon is aligned to the nearest road to suppress GPS position errors. The direction of the icon is one of the directions of the route.



To use the current GPS position, tap **Position**. The Position menu

appears and you can save the GPS position as one of the following:

- A Favorite
- A Road Safety Camera
- A POI
- A map marker Pin

## RETURNING TO NORMAL NAVIGATION

When GPS position is available, and you have moved the map (the



icon is moving or is not even visible), or you have rotated the



map in 3D mode, the soft Key appears. Tap it to move the map back to the GPS position and re-enable Track-up map orientation (automatic map rotation).



**Note** Even if you move the map while you are driving, **GoDrive** continues navigating if there is an active route: it plays the voice instructions and displays the turn preview icons according to your current GPS position.

## SELECTED LOCATION (CURSOR)

If you select a location in the Find menu, or you tap the map when the map control soft Keys are visible, the Cursor appears at the selected point on the map. **GoDrive** displays the Cursor with a



radiating red dot ( ) to make it visible at all zoom levels, even when it is in the background of a 3D map view.




When the Cursor is set, tap the Cursor menu. The Cursor menu appears and you can use the Cursor as one of the following:

- The start point of a route
- A via point in a route
- The destination of a route

You can also search for POIs around the Cursor. Or you can save the location of the Cursor as:


- A Favorite
- A Road Safety Camera
- A POI
- A map marker Pin


## ORIGINAL POSITION IN THE CURSOR MENU

When the Cursor menu is open, a special icon (  ) shows the Cursor position the menu was opened with.

You can move and zoom the map, and you can set the Cursor to a

different place. The usual cursor (  ) appears, and the soft Keys of the Cursor menu initiate actions for this new location.

To return to the original Cursor position, tap . The map jumps back to the position with which the Cursor menu was opened, and

the  icon appears again.

## DAYTIME AND NIGHT COLOR SCHEMES

**GoDrive** uses different color schemes during the day and during the night.

Daytime colors are similar to paper road maps.

The night color schemes use dark colors for large objects to keep the average brightness of the screen low.

**GoDrive** offers different daytime and night color schemes. It can also switch automatically between the daytime and the night scheme based on the current time and GPS position a few minutes before sunrise, when the sky has already turned bright, and a few minutes after sunset, before it becomes dark.

## COLOR SCHEME IN TUNNELS

When entering a tunnel, the colors of the map change. All buildings disappear, the large objects (such as surface waters or forests) and the empty areas between roads become black.

However, roads and streets keep their original colors from the daytime or night color scheme currently used.

After leaving the tunnel, the original colors return.

## ROUTE CALCULATION AND RECALCULATION

**GoDrive** calculates the route based on your preferences:

### Route calculation method:

- Fast
- Short
- Economical
- Easy

### Vehicle types:

- Car
- Taxi
- Bus
- Emergency vehicles
- Bicycle
- Pedestrian

### Road types

- Unpaved Roads
- Permit Needed
- Motorways
- Toll Roads
- Charge Roads
- Ferries
- Cross-border Planning
- Carpool Lanes (appears only when used in the USA)

**GoDrive** automatically recalculates the route if you deviate from the proposed itinerary. For further information about Route Planning options, refer to the Settings Menu section.

## ITINERARY

The Itinerary is the list of the route events, that is, the driving







instructions.



Figure 3-5: Itinerary

When you are on the Map screen, you can display the Itinerary in one of the following ways:




- Tap the area between the Turn preview and the Travel data fields where the symbol of the second next maneuver is displayed (for example: ).

- In Advanced mode, tap the following soft Keys:  ,  , 





You have the following options on the Itinerary screen:


Table 3-6: Itinerary Screen

Soft Key	Description
Any of the list items	Opens the map with the selected maneuver in the middle.

Soft Key	Description
	Changes the detail level of the Itinerary. The levels are as follows: <ul style="list-style-type: none"> <li>Detailed Instructions: all intersections are listed</li> <li>Itinerary: only significant intersections (the ones announced in voice guidance) are listed</li> <li>Road list: the list of the roads used while navigating the route</li> </ul>
 , 	Turns the page for additional list items.

When the map is open with a maneuver in the middle:

Soft Key	Description
	Zooms in the map.
	Zooms out the map.
 , 	Moves the map to show the previous or next maneuver.

Soft Key	Description
	Opens a screen where you can avoid a part of the route starting from the selected maneuver.

## TRACK LOGS

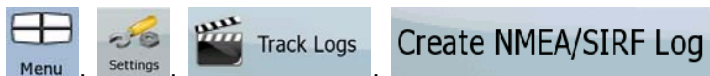
**GoDrive** can log the track that you drive.

A Track Log is a recording of how your GPS position changed and it is independent of the route that **GoDrive** calculated.

Track Logs can be recorded, renamed, replayed, shown on the map, exported to a memory card in GPX format, and deleted. See page 69.

Independently of the normal track log, you can instruct **GoDrive** to record the native GPS data received from the GPS device. These logs are saved as separate text files on the memory card, and they cannot be shown or replayed in **GoDrive**.

To turn on NMEA/SIRF log saving, tap the following soft Keys:





## ROUTE DEMONSTRATION

A simulation drives you through the route, following the driving instructions. You can choose from a simulation at high speed or at normal driving speed.

You can use it, for example, to see which bridge **GoDrive** planned for the route; if you do not want to take that bridge, you can avoid it.

Route demonstrations can be started from the Route menu by

tapping the  (high speed simulation) or the  (normal speed simulation) soft Key.





## POI (POINTS OF INTEREST)

A point of interest (POI) is a location that someone might find useful or interesting. **GoDrive** is delivered with thousands of POIs and you can also create your own POIs in the application.

POI locations are marked on the map with special icons. POI icons are quite large so you can easily recognize the symbol. The icons are also semi-transparent: they do not cover the streets and intersections behind them.


POIs are grouped into several levels of categories and subcategories. The icon of a POI that comes with the map shows the symbol of the POI category. If you save your own POI, you can select an icon for it independently of the POI category you have put it in.

## SAVING POI

To save a POI, place the Cursor (  ) at the desired location, then tap the following soft Keys:  ,  ,  .

## MANAGING POI

You can select which POI groups to show and which ones to hide on the map, and from which zoom levels POI icons are visible. At the same place you can manage the saved POIs. A saved POI can be renamed, moved to a different POI group, its icon can be changed, or a phone number and additional information can be added to it.

Tap the following soft Keys:  ,  ,  .

## ROAD SAFETY CAMERAS

The location of a Road Safety Camera is a special POI. They cannot be searched like other POIs, and there is a special proximity warning only for cameras.

QUESTION	ANSWER
Can Road Safety Camera locations be uploaded in a text file?	Yes
Can you save the Cursor as the location of a Road Safety Camera?	Yes

## SAVING ROAD SAFETY CAMERAS

To save the location of a Road Safety Camera, place the Cursor (



) at the desired location, then tap the following soft Keys:





**More Options...**



**Save as Camera**

## CAMERA WARNING

When you approach a Road Safety Camera with the warning enabled, the following happens:

- Visible Warning: The type of the camera is displayed in the secondary Turn Preview field (for example). 
- Audible Warning: If there is no speed limit given for the camera, or your speed is under the given speed limit, single beeps warn you about the camera.
- If you exceed the speed limit of the camera, the following also happens:
  - Visible Warning: A symbol with the speed limit appears in the corner of the map (for example: ),
  - Audible Warning: A special alert sound is played.

## CAMERA TYPES

The warning for Road Safety Cameras can be turned on in Warning

Settings. Tap the following soft keys



**Warnings**


**Speed Camera Warning**

When you approach a Road Safety Camera with the warning enabled, the following happens:

Visible Warning: The type of the camera is displayed in the








secondary Turn Preview field (for example ).

- Audible Warning: If there is no speed limit given for the camera, or your speed is under the given speed limit, single beeps warn you about the camera.
- If you exceed the speed limit of the camera, the following also happens:
  - Visible Warning: A symbol with the speed limit appears in the corner of the map (for example:  ).
  - Audible Warning: A special alert sound is played.

There are different types of Road Safety Cameras.

Table 3-7: Road Safety Cameras





Symbol	Type	Description
	Fixed	Some speed cameras stand by the roadside, looking in one direction, measuring one or both directions of the traffic. They measure your current speed. For these speed cameras you can specify the controlled traffic direction and the speed limit. <b>GoDrive</b> warns you when you approach these speed cameras in the measured direction. If your speed exceeds the speed limit near the speed camera, <b>GoDrive</b> plays a special warning sound.
	Mobile	Some speed cameras are operated from vehicles. They do not always work and they are not set to check a preset speed limit. The warning is similar to fixed speed cameras, but as there is no speed limit given, only the proximity is announced.
	Built-in	Some speed cameras are built into traffic lights. They work like fixed speed cameras, but they are difficult to spot. The warning for proximity and speeding is the same as for

Symbol	Type	Description
		the fixed speed cameras.
	Section control	These speed cameras work in pairs, and do not measure your current speed but your average speed between the two speed cameras. Both identify your car and record the exact time you pass them. They use the difference between the two points in time to calculate your average speed. <b>GoDrive</b> warns you when you approach one of these speed cameras, but as you pass by, the warning stays on, and your average speed is measured until you reach another speed camera of this type. If your average speed exceeds the speed limit between the two speed cameras, you receive the same special warning sound as with the other speed camera types. In the rare case <b>GoDrive</b> cannot register the moment you pass the second speed camera (for example, it is placed at the exit of a tunnel where GPS position is not yet available) the warning continues. Just tap the speed camera symbol displayed on the screen to stop the warning.
	Red light	These cameras check if you obey traffic lights. The warning is similar to mobile speed cameras: as there is no speed limit given, only the proximity is announced.

## CAMERA DIRECTIONS

A speed camera can measure the speed of one direction of the traffic, both directions, or even several directions in an intersection, when they are mounted on a rotating base. The same directions apply to red light cameras. **GoDrive** warns you only if you drive in a measured or possibly measured direction. The measured direction of

the camera appears with the following symbols:

Symbol	Description
	The camera checks the speed of the direction into which you are driving.
	The camera checks the speed of the opposite driving direction.
	The camera checks the speed in both directions on the road.
	The camera can check the speed in any direction.

### SPEED LIMIT WARNING


Maps sometimes contain information about the speed limits of the road segments. This information may not be available for your region (ask your local dealer) or may not be fully correct for all roads on the map.

You can configure **GoDrive** to warn you if you exceed the current

limit. Tap the following soft Keys:  ,  ,  ,

**Warn When Speeding**





When you exceed the speed limit, the following happens:

- Visible Warning: A symbol with the speed limit appears in the corner of the map (for example:  ).
- Audible Warning: A voice message is played using the selected voice guidance profile.



## ADVANCED FEATURES IN GODRIVE VERSION 8.3

**Note:** The following features are only available in Version 8.3 of

GoDrive. To identify if you have version 8.3, tap  **Menu**,  **Settings**, ,  **About** to view the **About** page.

**Guidance Stripes:** Guidance stripes show the direction to follow in case of a maneuver.



Figure 3-6: Guidance Stripes

**Signposts:** When driving on a highway, signposts are displayed.



Figure 3-7: Highway Signposts

**Shutdown:** If AV8OR is disconnected from an external power source, AV8OR will automatically shut down after a set number of seconds unless you tap the **Cancel** soft key.

## ROUTE NAVIGATION

You can set up your route in **GoDrive** in several ways:

if you need a simple route (a route with only one destination, without any intermediate via points), you can select the destination and start navigating to it right away

you can plan a multi-point route (available in Advanced mode only)

you can also plan a route independently of your current GPS position or even without GPS reception (available in Advanced mode only)

## Selecting the Destination of a Route

**GoDrive** offers you several ways of choosing your destination and via points (intermediate destinations):

- Use the selected location on the map.
- Enter a full address or a part of an address, for example a street name without a house number or the names of two intersecting streets.
- Enter an address with postal code. This way you do not need to select the name of the settlement and the search for street names might be faster as well.
- Use a coordinate.
- Use a saved location:
  - A Favorite
  - A POI
  - The History of previously set destinations and waypoints.

**Tip!** If you are going to use a route later, save it before you start

navigating. Tap the following soft Keys:






## SELECTING THE CURSOR AS THE DESTINATION

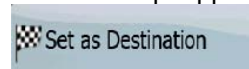
1. Locate your destination on the map: move and scale the map as needed.

2. Tap the location that you want to select as your destination. The

Cursor (  ) appears.

3. Tap  to open the Cursor menu.

4. The map appears with the selected point in the middle. Tap



(Simple mode) or



(Advanced mode) from the Cursor menu. The route is then automatically calculated, and you can start navigating.

**Tip!** If you know that you will use a destination later, when the Cursor menu appears, save it as a POI, or put it on the list of your Favorites first. The Cursor menu returns automatically with the same point. Now you can use it as a route point.

## ENTERING AN ADDRESS OR PART OF AN ADDRESS

If you know at least a part of the address, it is the quickest way to select the destination of the route.

- Using the same screen, you can find an address by entering:
- The exact address, including house number
- The center of a settlement
- An intersection
- The midpoint of a street
- Any of the above, starting the search with the postal code.


## ENTERING AN ADDRESS (EUROPE)

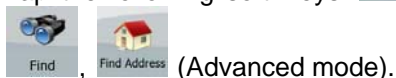
In some countries, states are not used in addressing. After selecting the country, the next step is to define the settlement. There are four lines on the screen:




Figure 3-8: Enter an Address (Europe)

The procedure is explained starting from the Navigation menu.

1. Tap the following soft Keys:  (Simple mode), or




2. By default, **GoDrive** proposes the country and settlement where you are. If needed, tap the soft Key with the name of the country, and select a different one from the list.

- If needed, change the settlement:
  - To select the settlement from the list of recently used ones, tap the  soft Key.
  - To enter a new settlement:
    1. Tap the soft Key with the name of the settlement, or if



you have changed the country/state, tap

<City Name>

2. Start entering the settlement name on the keyboard.
3. Get to the list of search results:
  - After entering a couple of characters, the names that match the string appear in a list.
  - Tap  to open the list of results before it appears automatically.
  - Pick the settlement from the list.

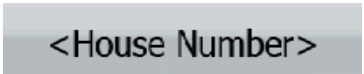

4. Enter the street name:

<Street Name>

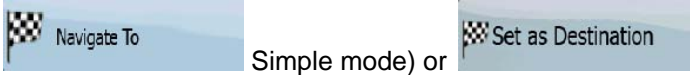
1. Tap .
2. Start entering the street name on the keyboard.
3. Get to the list of results:
  - After entering a couple of characters, the names that match the string appear in a list.
  - Tap  to open the list of results before it appears automatically.
4. Pick the street from the list.

5. Enter the house number:

<House Number>

1. Tap .
2. Enter the house number on the keyboard.
3. Tap  to finish entering the address.

6. The map appears with the selected point in the middle. Tap



Simple mode) or

(Advanced mode) from the Cursor menu. The route is then automatically calculated, and you can start navigating.

## ENTERING AN ADDRESS (NORTH AMERICA, AUSTRALIA)

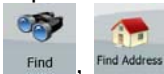
In some countries, the state is also used in addresses. If you are in one of these countries, or choose any of them from the list of countries, five lines appear on the screen:



Figure 3-9: Find an Address – USA

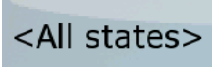
The procedure is explained starting from the Navigation menu.

1. Tap the following soft Keys:  (Simple mode), or



(Advanced mode).

2. By default, **GoDrive** proposes the country, state and settlement where you are. If needed, tap the soft Key with the name of the country, and select a different one from new country, you also

need to select the state, or tap  to search for a settlement regardless of the state it is in.

3. If you have not changed the country, you still have the possibility to change the state. Tap the soft Key with the name of the state, and select from the list.
4. If needed, change the settlement:


- To select the settlement from the list of recently used ones,

tap the  soft Key.


- To enter a new settlement:


1. Tap the soft Key with the name of the settlement, or if you have changed the country/state, tap



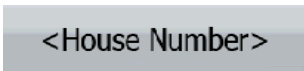
2. Start entering the settlement name on the keyboard.
3. Get to the list of search results:
  - After entering a couple of characters, the names that match the string appear in a list.
  - Tap  to open the list of results before it appears automatically.
4. Pick the settlement from the list


5. Enter the street name:



- a. Tap
- b. Start entering the street name on the keyboard.
- c. Get to the list of results:
  - After entering a couple of characters, the names that match the string appear in a list.
  - Tap  to open the list of results before it appears automatically.
4. Pick the street from the list.

6. Enter the house number:



1. Tap
2. Enter the house number on the keyboard.
3. Tap  to finish entering the address.

7. The map appears with the selected point in the middle. Tap



(Simple mode) or



(Advanced mode) from the Cursor menu. The route is then automatically calculated, and you can start navigating.

## ENTERING AN ADDRESS IF HOUSE NUMBERING IS RESTARTED

There are long roads where the house numbering is restarted at some point. This way the same house number can appear twice or even more times on the same road. If this is the case, after giving the house number, you need to select the appropriate address by the district/suburb information.

The procedure is explained starting from the Navigation menu.



1. Tap the following soft Keys: (Simple mode), or



, (Advanced mode).

2. By default, **GoDrive** proposes the country/state and settlement where you are. If needed, tap the soft Key with the name of the country/state, and select a different one from the list.

3. If needed, change the settlement:

- To select the settlement from the list of recently used ones,



tap the soft Key.

- To enter a new settlement:

1. Tap the soft Key with the name of the settlement, or if you have changed the country/state, tap






2. Start entering the settlement name on the keyboard.

3. Get to the list of search results:

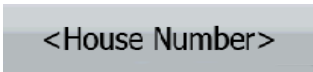

- After entering a couple of characters, the names that match the string appear in a list.



- Tap  to open the list of results before it appears automatically.
- 4. Pick the settlement from the list.
- 4. Enter the street name:

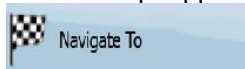
1. Tap .
2. Start entering the street name on the keyboard.
3. Get to the list of results:
  - After entering a couple of characters, the names that match the string appear in a list.
  - Tap .
  - to open the list of results before it appears automatically.
4. Pick the street from the list.

- 5. Enter the house number:

1. Tap .
2. Enter the house number on the keyboard.
3. Tap  to finish entering the address.

6. A list appears with the matching addresses. Tap the desired one.

7. The map appears with the selected point in the middle. Tap



(Simple mode) or



(Advanced mode) from the Cursor menu. The route is then automatically calculated, and you can start navigating.

## ENTER AN ADDRESS WITHOUT KNOWING THE DISTRICT/SUBURB

Long roads can run across several districts or suburbs. You may not know if a particular house number is in which of them. In this case, follow the instructions below:

The procedure is explained starting from the Navigation menu.

1. Tap the following soft Keys:  (Simple mode), or



(Advanced mode).

2. By default, **GoDrive** proposes the country/state and settlement where you are. If needed, tap the soft Key with the name of the country/state, and select a different one from the list.

3. If needed, change the settlement:

- To select the settlement from the list of recently used ones,



tap the soft Key.

- To enter a new settlement:

1. Tap the soft Key with the name of the settlement, or if you have changed the country/state, tap

<City Name>

2. Start entering the settlement name on the keyboard.

3. Get to the list of search results:

- After entering a couple of characters, the names that match the string appear in a list.

**Done**

- Tap to open the list of results before it appears automatically.

4. Pick the settlement from the list.

4. Enter the street name:

<Street Name>

1. Tap .

2. Start entering the street name on the keyboard.

3. Get to the list of results:

- After entering a couple of characters, the names that match the string appear in a list.

**Done**

- Tap to open the list of results before

it appears automatically.

4. Instead of picking one of the streets, tap

**Search in All**

5. Enter the house number:

<House Number>

1. Tap
2. Enter the house number on the keyboard.

**Done**

3. Tap to finish entering the address.

6. A list appears with the matching addresses. Tap the desired one.

7. The map appears with the selected point in the middle. Tap



(Simple mode) or



(Advanced mode) from the Cursor menu. The route is then automatically calculated, and you can start navigating.

## SELECTING AN INTERSECTION AS THE DESTINATION

The procedure is explained starting from the Navigation menu.

1. Tap the following soft Keys:  (Simple mode), or



(Advanced mode).

2. By default, **GoDrive** proposes the country/state and settlement where you are. If needed, tap the soft Key with the name of the country/state, and select a different one from the list.
3. If needed, change the settlement:

- To select the settlement from the list of recently used ones,



tap the soft Key.

- To enter a new settlement:

1. Tap the soft Key with the name of the settlement, or if

you have changed the country/state, tap

<City Name>

2. Start entering the settlement name on the keyboard.
3. Get to the list of search results:
  - After entering a couple of characters, the names that match the string appear in a list.

**Done**

- Tap **Done** to open the list of results before it appears automatically.
4. Pick the settlement from the list.
4. Enter the street name:

<Street Name>

1. Tap **<Street Name>**.
2. Start entering the street name on the keyboard.
3. Get to the list of results:
  - After entering a couple of characters, the names that match the string appear in a list.

**Done**

- Tap **Done** to open the list of results before it appears automatically.
4. Pick the street from the list.

**Intersection**

5. Tap the **Intersection**
  - If only a few intersecting streets exist, their list appears immediately.
  - In case of a longer street, a keyboard screen appears. Start entering the name of the intersecting street on the keyboard. As you type, if the matching streets can be shown on one screen, their list appears automatically.
6. Tap the desired intersecting street in the list.
7. The map appears with the selected point in the middle. Tap



Navigate To

(Simple mode) or




Set as Destination

(Advanced mode) from the Cursor menu. The route is then automatically calculated, and you can start navigating.

## SELECTING A CITY CENTER AS THE DESTINATION

The City Center is not the geometric center of the settlement but an arbitrary point the map creators have chosen. In towns and villages, it is usually the most important intersection; in larger cities, it is an important intersection.

The procedure is explained starting from the Navigation menu.

1. Tap the following soft Keys:  (Simple mode), or



(Advanced mode).

2. By default, **GoDrive** proposes the country/state and settlement where you are. If needed, tap the soft Key with the name of the country/state, and select a different one from the list.

3. If needed, change the settlement:

- To select the settlement from the list of recently used ones,



tap the soft Key.

- To enter a new settlement:

1. Tap the soft Key with the name of the settlement, or if you have changed the country/state, tap



2. Start entering the settlement name on the keyboard.

3. Get to the list of search results:

- After entering a couple of characters, the names that match the string appear in a list.



- Tap **Done** to open the list of results before it appears automatically.

4. Pick the settlement from the list.



4. Tap the **City Centre** soft Key.

5. The map appears with the selected point in the middle. Tap



(Simple mode) or



(Advanced mode) from the Cursor menu. The route is then automatically calculated, and you can start navigating.

## ENTERING AN ADDRESS WITH A POSTAL CODE

All of the above address searching possibilities can be performed with entering the postal code instead of the settlement name. Find below an example with a full address:

The procedure is explained starting from the Navigation menu.



1. Tap the following soft Keys: (Simple mode), or



(Advanced mode).

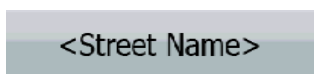
2. By default, **GoDrive** proposes the country/state and settlement where you are. If needed, tap the soft Key with the name of the country/state, and select a different one from the list.
3. Tap the soft Key with the name of the settlement, and enter the postal code:

1. Start entering the postal code on the keyboard.
2. Get to the list of results:
  - o After entering a couple of numbers, the ones that are a match appear in a list.


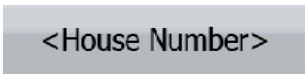

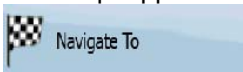
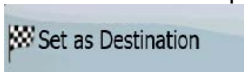


- o Tap to open the list of results before it appears automatically.

3. Pick the settlement from the list.
4. Enter the street name:




1. Tap .
2. Start entering the street name on the keyboard.
3. Get to the list of results:
  - o After entering a couple of characters, the names that match the string appear in a list.

- Tap  to open the list of results before it appears automatically.
- 4. Pick the street from the list.
- 5. Enter the house number:
  - 1. Tap .
  - 2. Enter the house number on the keyboard.
  - 3. Tap  to finish entering the address.
- 6. The map appears with the selected point in the middle. Tap  (Simple mode) or  (Advanced mode) from the Cursor menu. The route is then automatically calculated, and you can start navigating.

## TIPS ON ENTERING ADDRESSES QUICKLY




When you are entering the name of a settlement or a street, **GoDrive** only displays those characters that appear in possible search results. The other characters are grayed out.

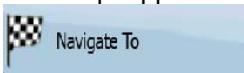
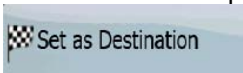
- When entering the settlement name or the street name, tap the  soft Key after a couple of letters; **GoDrive** lists the items that contain the character set.
- You can speed up finding an intersection:
  - Search first for the street with a less common or less usual name; fewer letters are enough to find it.
  - If one of the streets is shorter, search for that one first. You can then find the second one faster.
- You can search for both the type and the name of a road. If the same word appears in several names, for example in the name of streets, roads and avenues, you can obtain the result faster if you enter the first letter of the street type: For example, enter **Pi A** to obtain **Pine Avenue** and skip all **Pine Streets** and **Pickwick Roads**.

- You can also search in postal codes. This is useful when a street name is common and it is used in several districts of a city.

## SELECTING THE DESTINATION FROM YOUR FAVORITES

You can select a location that you have already saved as a Favorite to be your destination. The procedure is explained starting from the Navigation menu.




1. Tap the following soft Keys:  (Simple mode) or ,  (Advanced mode).

2. Tap the Favorite that you want to set as your destination.
3. The map appears with the selected point in the middle. Tap  (Simple mode) or  (Advanced mode) from the Cursor menu. The route is then automatically calculated, and you can start navigating.



## SELECTING THE DESTINATION FROM THE POIS

You can select your destination from the POIs included with **GoDrive** or from the ones you have previously created.

The procedure is explained starting from the Navigation menu.

1. Tap the following soft Keys:  (Simple mode), or ,  (Advanced mode).

2. Select the area around which the POI should be searched:

- : The POI will be searched around a given address.
- : The map appears with the Cursor in the middle. Modify the location of the Cursor if necessary, then tap





. The POI will be searched around the given location.



- : The POI will be searched around the current GPS position.



- : The POI will be searched around the destination of the active route.



- : The POI will be searched not around a given point but by the size of the detour it means from the active route. This can be useful if you search for a later stopover that causes only a minimal detour. For example upcoming petrol stations or restaurants.

3. You can narrow the search with the following: Select the POI group (e.g. Accommodation), and after that, if needed, select the POI subgroup (e.g. Hotel or Motel).



- To find the POI by its name, tap **Search**, and use the keyboard to enter a part of the name.
- To list all POIs in a given POI group, tap



4. [optional] When finally the list of results appear, you can sort the list:



- : sort the list alphabetically (available when you search around a single location)



- : sort the list by the distance from your current position in a straight line (available when you search around a single location)



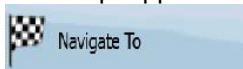
- : sort the list by the distance to drive on route from your current position (available when you search along the active route)



- : sort the list by the size of the needed detour (available when

5. Tap the desired POI in the list.

6. The map appears with the selected point in the middle. Tap



(Simple mode) or



(Advanced mode) from the Cursor menu. The route is then automatically calculated, and you can start navigating.

## SELECTING THE DESTINATION WITH SAVED POI SEARCH CRITERIA

POI search criteria can be saved in the POI section of the Manage menu, but **GoDrive** is already shipped with some saved criteria you can use instantly when searching for a POI.

The procedure is explained starting from the Navigation menu.

1. Tap the following soft Keys:



(Simple



mode), or



(Advanced mode).

2. Tap
3. Select one of the saved criteria and the list of matching POIs appear.
4. Tap the desired POI in the list.
5. The map appears with the selected point in the middle. Tap



6. (Simple mode) or



(Advanced mode) from the Cursor menu. The route is then automatically calculated, and you can start navigating.

## SELECTING THE DESTINATION FROM THE HISTORY


The destinations that you have set earlier appear in the History. The procedure is explained starting from the Navigation menu.



1. Tap the following soft Keys: (Simple mode), or



(Advanced mode).

2. If necessary, turn the page with  to see earlier destinations.

3. Tap the desired item.

4. The map appears with the selected point in the middle. Tap



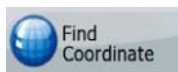
(Simple mode) or



(Advanced mode) from the Cursor menu. The route is then automatically calculated, and you can start navigating.

## SELECTING THE DESTINATION BY ENTERING ITS COORDINATE

This feature is available in Advanced mode only. The procedure is explained starting from the Navigation menu.



1. Tap the following soft Keys:


Coordinate Display Format

2. [optional] Tap to change the format of the displayed coordinates.

3. Tap the latitude or longitude value to change the coordinate.

4. Enter the coordinate values in WGS84 format on the keyboard: the latitude (N or S) and the longitude (E or W).



5. Tap  Done
6. The map appears with the selected point in the middle. Tap



(Simple mode) or



(Advanced mode) from the Cursor menu. The route is then automatically calculated, and you can start navigating.


**Creating a Multi-point Route (Inserting a Via Point)**

Multi-point routes are created from simple routes, so a route must be active first. One of the ways of expanding the route is to keep the destination, and to add via points (intermediate destinations).

This feature is available in Advanced mode only.


1. Select a new location as you did in the previous sections. This will be the additional destination in the route.
2. The map appears with the selected point in the middle, and the Cursor menu opens automatically.







3. Tap  Insert as Via to add the point as an intermediate destination preceding the final destination of the route.
4. [optional] To add more points to the route, repeat the above steps as many times as you like.

If you insert a via point in a route that is already a multi-point route, you will automatically be taken to the Edit Route screen where you can determine the position of the intermediate route point. When you enter the screen, the new via point is placed as the last via point before the final destination. The new point is the selected point in the list.

You have the following options:

Soft Key	Action
	The selected point moves up in the list (becomes a via point to be reached earlier). Tap this soft Key repeatedly, and the point becomes the start point of

Soft Key	Action
	the route.
	The selected point moves down in the list (becomes a via point to be reached later). Tap this soft Key repeatedly, and the point becomes the final destination of the route.
	The route is reversed. The start point becomes the destination, the destination becomes the start point, and all via points are to be reached in the opposite order than before.
	The route is optimized. The start point and the destination remain at their position, but the via points are reordered to make the shortest possible route.
	The selected point is removed from the route. The route remains as it was before adding the new point.

Every time a new point is added, the route is recalculated automatically, and you can start navigating right away.

## Creating a Multi-point Route (Append a New Destination)

Multi-point routes are created from simple routes, so a route must be active first. One of the ways of expanding the route is to add a new destination. The previous destination becomes the last via point of the route.


This feature is available in Advanced mode only.

1. Select a new location as you did in the previous sections. This will be the additional destination in the route.
2. The map appears with the selected point in the middle, and the Cursor menu opens automatically.

**More Options...**

3. Tap **More Options...** to open the full Cursor menu with the additional functions.

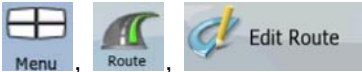


- 4. Tap  to add the point as a new final destination demoting the previous one to the last intermediate destination.
- 5. [optional] To add more points to the route, repeat the above steps as many times as you like.

Every time a new point is added, the route is recalculated automatically, and you can start navigating right away.

### Editing the Route





This feature is available in Advanced mode only.



Tap the following soft Keys:

The list of route points appear with the start point at the top of the list and the final destination at the bottom. If several via points exist, you might need to turn the page.

Tap one of the route points in the list. You have the following options:

Soft Key	Action
	The selected point moves up in the list (becomes a via point to be reached earlier). Tap this soft Key repeatedly, and the point becomes the start point of the route.
	The selected point moves down in the list (becomes a via point to be reached later). Tap this soft Key repeatedly, and the point becomes the final destination of the route.
	The route is reversed. The start point becomes the destination, the destination becomes the start point, and all via points are to be reached in the opposite order than before.
	The route is optimized. The start point and the destination remain at their position, but the via points are reordered to make the shortest possible route.












The selected point is removed from the route.

As soon as you leave this screen, the route is recalculated automatically, and you can start navigating right away.

## Viewing Whole route on the Map (Fit to Screen)

The map can be moved and scaled to show the whole line of the route. You do not need to manipulate the map manually. The Plan on Map feature does it for you.



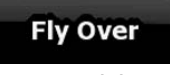
In **Advanced mode** you have the following options to enter Plan on Map:

- Via the Find menu: tap  ,  ,  .
- Via the Route Information screen: tap  ,  ,  ,  ,
- Via the Route Information screen using a shortcut: tap  ,  .

In **Simple mode** the last option is available only.

## Watching the Simulation of the Route

This feature is available in Advanced mode only. The procedure is explained starting from the Map screen.

1. Tap the following soft Keys:  ,  .
2. The Route menu appears. There are two ways of running the route simulation:
  - Tap  to run the simulation at high speed to give you a quick overview of the route.

### Fly Over

- Tap
- to run the simulation at normal speed and with voice guidance instructions announced. This option is for demonstration purposes, or for checking difficult parts of the route in advance.



3. The simulation can be aborted any time by tapping

## Enabling Safety Mode

This feature is available in Advanced mode only.

Safety Mode disables the touch screen above 10 km/h (6 mph) to keep your attention on the road. While driving, you will not be able to set a new destination or to change settings. The only screen control that remains enabled is the gesture that puts you back on the Map screen.

The procedure is explained starting from the Map screen.



Tap the following soft Keys:

**Safety Mode**

## Pausing the Active Route

You do not need to pause the active route: when you start driving again, **GoDrive** restarts the voice instructions from your position.

## Deleting the Next Via Point from the Route

The easiest way to delete the upcoming route point (the next via point) in both Simple mode and Advanced mode is to open the



Route Information screen by tapping the Turn Preview field (

**Skip Next Via**

on the Map screen, and then tapping


In Advanced mode, you have another option. Tap the following soft





## Deleting the Active Route

The easiest way to delete the active route in both Simple mode and Advanced mode is to open the Route Information screen by tapping

the Turn Preview field () on the Map screen, and then tapping




In Advanced mode, you have another option. Tap the following soft

Keys:  ,  , ,

If via points exist in the active route, you cannot delete the route

immediately on the Route Information screen. Tap 

repeatedly until all via points disappear and the  soft Key appears. Tap it to cancel the whole route.

## Using Track Logs

**GoDrive** can record the track (how your GPS position changed) that you drive.

**Tip!** You do not need to select a destination and create a route for this; you can also record your driving path while cruising.


This feature is available in Advanced mode only. The procedure is explained starting from the Map screen.

## RECORDING THE TRAVELLED PATH (CREATING A TRACK LOG)


1. Start driving.

2. Tap the following soft Keys  ,  , 

3. Start the recording: tap the  soft Key. You return to the map and you can continue driving.

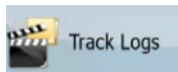
4. Repeat the above steps, then tap  later to stop the recording. **GoDrive** labels the Track Log with a time stamp.




(As an alternative, you can tap the  soft Key in the Quick menu to start, and later to stop the Track Log recording.)

## SIMULATING A TRACK LOG ON THE MAP

1. Tap the following soft Keys:  ,  ,





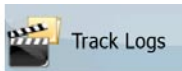
2. Locate the desired Track Log, and then tap the  soft Key next to it.

3. The map returns, and the Track Log simulation (a life-like replay) begins.

4. You can stop the replay any time by tapping the  soft Key.

## CHANGING THE COLOR OF A TRACK LOG

1. Tap the following soft Keys:  ,  ,




2. Tap the desired Track Log and then tap one of the color soft Keys.

## SAVING A ROUTE

This feature is available in Advanced mode only.

The procedure is explained starting from the Map screen.

Tap the following soft Keys:  ,  ,



Enter a name for the saved route, and then tap

A black rectangular button with the word "Done" in white, bold, sans-serif font.

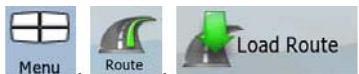
When you save a route, **GoDrive** not only saves the route points but the whole itinerary:

- The saved route might have been influenced by TMC information. When you later use the route, it appears as it was saved, but if it needs to be recalculated, the current TMC information will be used in the new route.
- If you updated your map since you first saved the route, **GoDrive** recognizes the change, and recalculates the driving instructions according to the latest available map information.
- **GoDrive** deletes from the route the via points that you already left behind during navigation together with the road segments used to reach it. To avoid this, if you want to save the route, you need to save it before you start navigating.

## LOADING A SAVED ROUTE

This feature is available in Advanced mode only.

The procedure is explained starting from the Map screen.



1. Tap the following soft Keys:
2. Tap the route you wish to navigate.
3. In the very likely case when the start position of the saved route is different from the current GPS position, you need to confirm whether you want to stop navigating from the current GPS position to use the start point of the loaded route.
  - If you choose this option, the automatic off-route recalculation will be disabled.
  - If you choose to keep the current GPS position as the start point, the route will be recalculated starting from your current position.
4. The map appears, and you can start navigating.






## REFERENCE BOOK (ADVANCED MODE)

On the following pages you will find the description of the different menu screens of **GoDrive** in Advanced mode. In Simple mode, these functions work the same way, but only a few of them are available.

### The Navigation menu:

**GoDrive** starts with the Navigation menu. From there you can access the following screens:

Table 3-8: Navigation Menu

Screen	Soft Key	Description
Map		The Map screen.
Find		Selecting the destination (for example an address or a POI) or using the search engine of <b>GoDrive</b> for any other reason (for example to look for the phone number of a POI).
Route		Managing the active route (obtaining information about it, changing or deleting it or parts of it) or planning a route without GPS reception.
Manage		Managing user data, such as saved locations (POIs, Favorites, Pins, and History items), Saved Routes, and Track Logs.
Settings		Managing the behavior of <b>GoDrive</b> , for example the map layout during navigation, the used languages or the warnings.

## Map Screen



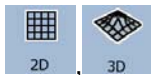



The most important and most often used screen of **GoDrive** is the Map screen.












Figure 3-10: Map Screen Advanced Mode

During navigation, the screen shows route information and trip data (left screenshot), but when you tap the map, additional soft Keys and controls appear for a few seconds (right screenshot). Most parts of the screen behave as soft Keys.






Symbol	Name	Action
	Turn Preview, that is, the next route event	Opens the Route Information screen
	Second upcoming route event	Opens the Itinerary
	Trip data	Opens the Trip Information screen
	Battery status	Opens the Quick menu

Symbol	Name	Action
	GPS position quality	Opens the Quick menu
	Vehicle used in route calculation	Opens the Quick menu
Top row	Next street	n/a
Bottom row	Current street and house numbers on left and right	n/a
	Map view modes	Switches between 2D and 3D map modes
	Menu	Opens the Navigation menu
	Detour	Opens the Detour screen, two ways of modifying the route: <ul style="list-style-type: none"> <li>the list of Saved Search Criteria</li> <li>a soft Key to avoid parts of the route</li> </ul>
	Position menu (appears when navigating a route)	Opens the Position menu

Symbol	Name	Action
	Cursor menu (appears when there is no GPS position or the Cursor is not at the current GPS position)	Opens the Cursor menu
	Open/Close Map control soft Keys	Tap this soft Key to show or hide the following map control soft Keys: • Zoom in/out • Rotate left/right (3D map only) • Tilt up/down (3D map only) • Zoom preset soft Keys (2D map only) • Tilt and zoom preset soft Keys (3D map only) • Return to GPS position soft Key • Smart Zoom soft Key
	Rotate left, rotate right	Rotates the 3D map left or right
	Tilt up, tilt down	Tilts the 3D map
	Zoom in, zoom out	Scales the map
	Return to GPS position (appears when GPS position is available and you have moved the	Tap this soft Key to move the map back to the current GPS position. If the map has been rotated in

Symbol	Name	Action
	map)	3D mode, automatic map rotation is also re-enabled.
	Enable Smart Zoom (replaces the previous soft Key if there is no GPS position or the map has not been moved)	Tap this soft Key once to enable Smart Zoom. Tap & hold the soft Key to set the zoom limits of Smart Zoom.
	Zoom preset soft Keys (available in Advanced mode only)	Tap one of the preset soft Keys to set the zoom level to a fix,
	Zoom preset soft Keys (available in Advanced mode only)	Tap one of the preset soft Keys to set the zoom level to a fix, predefined value. Smart Zoom is disabled. These soft Keys are available in 2D mode Tap & hold any of the soft Keys to set its value to the current zoom level or to reset it to its original value.,



Symbol	Name	Action
	Tilt preset soft Keys (available in Advanced mode only)	Tap one of the preset soft Keys to set the tilt and zoom levels to fix, predefined values. Smart Zoom is disabled. These soft Keys are available in 3D mode. Tap & hold any of the soft Keys to set its value to the current tilt and zoom levels, or to reset it to its original value.
	Current GPS position (on nearest road)	n/a
	Cursor (selected map location)	n/a
	Lane information	n/a
Orange line	Active route	n/a
	Map scale (2D map only)	n/a

## ICONS ON THE MAP





There are several status icons on the map. Most of them also function as a soft Key. The information they provide is as follows:

- GPS position quality


- Battery status
- Vehicle type used for route calculation
- Sound status (muted or enabled)
- Track log recording status
- TMC reception and processing status
- Bluetooth connection and communication status




## BATTERY, GPS POSITION QUALITY, VEHICLE TYPE INDICATOR

This is a complex indicator, and a soft Key that opens the Quick menu. The battery part shows information about the rechargeable battery of the device.






Icon	Description
	The battery is charging. The device runs on external power.
	The battery is not charging but it is full.
	The battery is not full but it still has enough capacity.
	You need to recharge the battery.

The GPS reception quality shows the current accuracy of the position information.

Icon	Description
	There is no connection to the GPS receiver: GPS navigation is not possible. Devices with a built-in GPS receiver are permanently connected. On such devices, the icon does not appear in normal circumstances.

Icon	Description
	<b>GoDrive</b> is connected to the GPS receiver, but the signal is too weak and the receiver cannot determine the GPS position. GPS navigation is not possible.
	Only a few satellites are received. Position information is available, but elevation (altitude) cannot be calculated. GPS navigation is possible, but the position error may be significant.
	Altitude information is available, the position is a 3D position. GPS navigation is possible.

The remaining part of the field shows the vehicle type used for route calculation.









Icon	Vehicle type
	Car
	Taxi
	Bus
	Emergency vehicles
	Bicycle






	Pedestrian
--	------------

## STATUS INDICATOR STRIP

This is a complex indicator. In one strip it indicates the following status information:

Icon	Description
	The sound output of <b>GoDrive</b> is muted.





Icon	Description
	The sound output of <b>GoDrive</b> is enabled.
	<b>GoDrive</b> records a Track log when GPS position is available.
	Track log recording is disabled.
	No TMC receiver is connected or TMC is turned off.
	TMC receiver is connected and a radio station with TMC broadcast is received.
	There are new, unread TMC events.
	A part of the route is bypassed based on TMC events.
	A part of the route is mentioned in TMC events but could not be bypassed (for example, the destination is on a congested street).











	The Bluetooth radio is switched off.
	The Bluetooth radio is turned on, but no telephone is connected.
	There is an error in the Bluetooth connection.
	<b>GoDrive</b> is connected to a telephone as a hands free set via Bluetooth.
	A phone call is in progress over the Bluetooth connection.

## NEXT TWO ROUTE EVENTS (TURN PREVIEW FIELDS)

There are two fields reserved on the Map screen to display the next two maneuvers (route events that are listed in the Itinerary). Both the type of the event (turn, roundabout, exiting motorway, etc.) and its distance from the current GPS position is displayed.

Most of these icons are very intuitive and you also know them as road signs. The following table lists some of the frequently shown route events. The same symbols are used in both fields:

Icon	Description
	Turn left.
	Turn right.
	Turn back.
	Bear right.

Icon	Description
	Keep left.
	Continue straight in the intersection.
	Enter roundabout. The number of the exit is shown in the circle, but only for the next turn.
	Enter motorway.
	Exit motorway.
	Board ferry.
	Leave ferry.
	Approaching the next via point.
	Approaching the destination.
	Turn sharp left.

In certain situations when route events are not important, these fields show other useful pieces of information.

## Objects on the map

### STREETS AND ROADS




**GoDrive** shows the streets in a way that is similar to how the paper road maps show them. Their width and colors correspond to their importance: you can easily tell a motorway from a small street.




Tip!

If you prefer not to see street names during navigation, turn them off.

## ELEMENTS OF THE ACTIVE ROUTE

**GoDrive** shows the route in the following way:

Symbol	Name	Description
	Current GPS position	<p>Your current position displayed on the map.</p> <ul style="list-style-type: none"> <li>• In pedestrian mode it is the exact GPS position.</li> <li>• If a vehicle is selected for route calculation, the arrow is put on the nearest road.</li> </ul>
	Cursor (selected location) map	The location selected in the Find menu, or a map point selected by tapping the map.
	Start point	<p>The first point of the route. Normally, if GPS position is available, it is the start point of the route.</p> <p>If there is no valid GPS position, <b>GoDrive</b> uses the last known GPS position as the start point.</p> <p>When you are using a saved route, <b>GoDrive</b> asks you if you want to use your GPS position or the first point in the saved route as the start point.</p> <p>You can also modify the start point in the Cursor menu. If you do so, the automatic off-route recalculation needs to be turned off to keep the selected point as the start point.</p> <p>If the automatic off-route recalculation is disabled for any of</p>

Symbol	Name	Description
		 <p>the above, tapping the icon in the Turn Preview field not only initiates a route recalculation from the current GPS position, but it will re-enable the automatic off-route recalculation as well.</p>
	Via point	A via point is an intermediate destination. You can place as many via points as you want.
	Destination (end point)	The last point of the route, the final destination.


Symbol	Name	Description
	Route color	The route always stands out with its color on the map, both in daytime and in night color mode. The active leg of the route is always displayed in a brighter shade than the inactive (upcoming) legs.
	Active leg of the route	The section of the route on which you are driving. If you have not added any via points (only a destination), the entire route is the active leg. If you have added via points, the active leg is the part of the route from your current location to the next route point (the next via point, or the destination if there are no more via points to reach).
	Inactive legs of the route	The future sections of the route; each of them becomes active when you reach the via point at its beginning.



	Streets and roads that are excluded from the navigation	You can choose whether you want to use or avoid certain road types. However, when <b>GoDrive</b> cannot avoid such roads, the route will include them and it will show them in a color that is different from the route color.
--	---	--

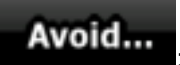
## DETOUR MENU


This screen contains quick detour possibilities during navigation. It

can be opened directly from the Map screen by tapping .

You have the following options:

- On the main part of the screen you can see the first page of Saved Search Criteria. Select any of the criteria to quickly receive the list of nearest matching POIs, and instantly plan a new route to the desired one, or insert it as a via point in your active route.
- In Advanced mode more soft Keys appear at the bottom:


-  : If you want to bypass a part of the route starting from the next intersection, tap this soft Key, and select a distance to bypass.

-  : If you have used the above function before, tap this soft Key to clear the restrictions from the map.









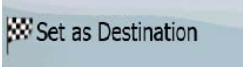
## CURSOR MENU







As soon as you select one point in the Find menu, the map appears with the Cursor menu, a menu with possible actions for the selected point.

Alternatively, when you tap the map, control soft Keys appear. Tap








again to place the Cursor, a radiating red dot. Now tap  and the Cursor menu opens with a list of options. In order to show a part of the map with the Cursor menu, it contains only a few soft Keys first.

Tap **More Options...** to get all the options.

Soft Key	Description
	Closes the Cursor menu, and returns to the previous screen.
	Zooms out the map.
	Zooms in the map.
	With the Cursor menu open, you can still move or scale the map, and tap the map anywhere to place the Cursor to a new location, but when you use this soft Key, the Cursor jumps back to the place where it was at the time when you opened the Cursor menu.
	Displayed at the Cursor if it is at the same location with which the Cursor menu was opened.
	Displayed at the Cursor if it has been relocated since the Cursor menu was opened.
	Opens a new screen with the address and coordinate of the Cursor, and the list of nearby POIs.
	Opens the full-screen Cursor menu with all the possible options.
	A new route is calculated with the Cursor as the destination. The previous route is deleted.

Soft Key	Description
 Remove Destination	If the Cursor is at or near the destination, this soft Key replaces the previous one, and deletes the current destination from the route. The last via point is promoted as destination, or if there are no via points, the route is deleted.
 Insert as Via	The Cursor is added to the active route as an intermediate route point, a point to be reached before the destination. If there is already a via point in the route, the Edit Route screen opens to let you decide where the new via point is to appear in the route.
 Remove Via	If the Cursor is at or near one of the via points, this soft Key replaces the previous one, and deletes the selected via point from the route. The route is recalculated without the deleted point.
 Continue	The Cursor is appended at the end of the route as the new destination. The previous destination is demoted, and becomes the last via point.
 Routing Methods	This soft Key is similar to the soft Key, but a new screen opens, and the route is calculated with all the possible route calculation methods (Fast, Short, Economical and Easy). Observe the results, and choose one of the routes to navigate.
 Set as Start	The Cursor becomes the start point of the route. This means that the route will not be started from the current GPS position, and Automatic Off-route Recalculation needs to be turned off to keep the start point the selected one.

Soft Key	Description
----------	-------------

Soft Key	Description
 Remove Start	If the Cursor is at or near the selected start point, this soft Key replaces the previous one, and deletes the start point from the route. The current GPS position is used again as the start point, and Automatic Off-route Recalculation is re-enabled.
 Save as POI	The Cursor is saved as a user POI. Select the POI group and give a name for the POI, then select a suitable icon, enter a phone number, and additional information if you like.
 Place Pin	Map locations can be marked with Pins. Unlike POIs, a Pin has no name and other details, only a color to let you tell one from another on the map.
 Remove Pin	If the Cursor is at or near a Pin, this soft Key replaces the previous one, and deletes the Pin the Cursor is near to.
 Save as Camera	The Cursor is saved as the location of a Road Safety Camera (speed camera or red light camera). A new screen appears where you can set the type of the camera, the direction of the measured traffic, and the speed limit checked (if applicable).
 Edit Camera	If the Cursor is at or near a Road Safety Camera, this soft Key replaces the previous one, and opens a new screen where you can edit the details of the camera.
 Add to Favourites	The location of the Cursor is added to the list of frequently visited destinations, the so called Favorites. You can give a name for the Favorite.

## POSITION MENU

When you follow the recommended route on the map (the Cursor is the current GPS position), the Position menu replaces the Cursor menu. It does not contain soft Keys that modify the current route, as the GPS position is not useful as a route point.



To open the Position menu, tap

## ROUTE INFORMATION SCREEN

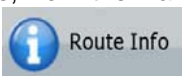
The Route Information screen has all the data and some of the functions you need while you navigate. There are two ways to open this screen:

- It can be opened directly from the Map screen by tapping the



Turn Preview field ( ).

- In Advanced mode, from the Navigation menu tap the following



soft Keys:






Figure 3-11: Route Information Screen

In the top section of the screen you see information about the current route. The fields on this screen are continuously updated while you keep the screen open.

When you open the screen, all fields contain information about reaching your final destination. Tap any of the fields to see data on the via points starting from the first one through the final destination again.

You have the following data and functions on this screen:

Name	Description	Function
Route line	The upper part of this screen shows your planned route as a horizontal line. Its leftmost point is the start of the route, the rightmost one is the final destination, and you can see your via point flags along the line, spaced in proportion to their distance.	Tap this field to change the content of all data fields to via point information.
Estimated Arrival	Shows the estimated arrival time at the final destination of the route based on information available for the remaining segments of the route. The calculation cannot take into account traffic jams and other possible delays.	Tap this field to change the content of all data fields to via point information.
Distance Left	Shows the distance you need to travel on the route before reaching your final destination.	Tap this field to change the content of all data fields to via point information.
Time Left	Shows the time needed to reach the final destination of the route based on information available for the remaining segments of the route. The calculation cannot take into account traffic jams and other possible delays.	Tap this field to change the content of all data fields to via point information.

Name	Description	Function
Method	This field shows how the route was calculated. It either displays the Route Calculation Method or the Vehicle field from the Route Planning options. If you have chosen Car, Taxi or Bus, the type of the route (Fast, Short, Easy or Economical) will be displayed here; if you have selected Emergency, Bicycle or Pedestrian, this information will be displayed here.	Tap this field to change the content of all data fields to via point information.
Warning icons	In these square fields graphical symbol are displayed in case warnings are attached to the planned	Tap any of the icons for an explanation.
Name	Description	Function
	route. These are warnings, so icons always show information for the whole route, even if the data fields display values from your current position to a via point only.	
		Opens the Route Planning options screen from the Settings menu.
		Opens the map screen designed for route planning.
	Appears only if at least one via point exists.	Deletes the next via point from the route.

Name	Description	Function
<b>Delete Route</b>	Appears only if there are no via points in the route.	Deletes the active route.

TRIP INFORMATION SCREEN

The Trip Information screen has both route and travel data you might need during your journey. It can be opened directly from the Map



screen by tapping the Trip Data field (  ).



Figure 3-12: Trip Information Screen

The fields on this screen are continuously updated while you keep the screen open. When you open the screen, all route data fields



contain information about reaching your final destination. Tap 

/ **Next Via Point** and the fields concerning your route display data for the next via point. Tap the soft Key repeatedly to toggle between the two possibilities.

You have the following data and functions on this screen:


Name	Description	Function
------	-------------	----------







Name	Description	Function
 or 	Shows whether the route data fields show information about the final destination (checkered flag) or about the next via point (yellow flag).	
Field next to the flag	Shows the name or number of the current street or road.	
Turn Preview	Shows the type and distance of the next route event.	
Compass	Shows the current heading.	Tap this field to show it on the map screen in one of the Trip Data fields.
Speedometer	Shows the current speed both graphically and as a number.	Tap this field to show it on the map screen in one of the Trip Data fields.
Distance Remaining	Shows the distance you need to travel on the route before reaching your final destination.	Tap this field to show it on the map screen in one of the Trip Data fields.

Name	Description	Function
Time Remaining	Shows the time needed to reach the final destination of the route based on information available for the remaining segments of the route. The calculation cannot take into account traffic jams and other possible delays.	Tap this field to show it on the map screen in one of the Trip Data fields.
Arrival Time	Shows the estimated arrival time at the final destination of the route based on information available for the remaining segments of the route. The calculation cannot take into account traffic jams and other possible delays.	Tap this field to show it on the map screen in one of the Trip Data fields.
GPS Time	Shows the current time corrected with time zone offset. The accurate time comes from the GPS satellites, and the time zone information comes	Tap this field to show it on the map screen in one of the Trip Data fields.

Name	Description	Function
	from the map or it can be set manually in Regional settings.	
Altitude	Shows the elevation if it is provided by the GPS receiver.	Tap this field to show it on the map screen in one of the Trip Data fields.
Speed Limit	Shows the speed limit of the current street if the map contains it.	Tap this field to show it on the map screen in one of the Trip Data fields.
<b>Trip Computer</b>		Opens a new screen with three resettable Trip Computers.
<b>Next Via Point</b>		Tap this soft Key to change the content of the Route Data fields to show information about the next via point.
<b>Destination</b>	If you tap the previous soft Key, this one replaces it.	Tap this soft Key and the Route Data fields show information about the final destination again.

Most of the fields on this screen have a  symbol next to them.

This symbol shows whether the field it is attached to is shown on the map as a Trip Data. It also shows the position of the data as follows:



Symbol	Description
	This value is not shown on the map screen.
	This value appears on the map screen in the Trip Data area. This is the value at the top.
	This value appears on the map screen in the Trip Data area. This is the value in the middle.
	This value appears on the map screen in the Trip Data area. This is the value at the bottom.



## TRIP COMPUTER SCREEN

The Trip Computer screen provides collected trip data. It can be opened from the Trip Information screen by tapping

**Trip Computer**

The fields on this screen are continuously updated while you keep the screen open. You can switch between the trips, pause then resume them, or reset their data. You have the following functions on this screen:

Name	Description
	Pauses the trip currently shown on the screen. Values on the screen stop changing.
	This soft Key replaces the previous one if it has been activated. Tap it to resume collecting trip data.

	Resets all counters of the currently shown trip. Collecting trip data is restarted only when <b>GoDrive</b> receives a position from the GPS.
	Cycles through all trips.

## QUICK MENU

The Quick menu is a selection of controls that are frequently needed during navigation. It can be opened directly from the Map screen by








tapping .






Figure 3-13: Quick Menu

If you tap any of the switches in the Quick menu except for the Vehicle type, the Map screen immediately returns. A switch is on if its lamp is lit. The Vehicle type soft Key is different. It is a multi-value soft Key. It opens a list of available choices, and the symbol of the selected vehicle is shown on the soft Key.

Name	Main function (single tap)	Function (tap and hold)
Master Volume slider	Adjusts the sound volume of the device. All sounds of the	No action.

Name	Main function (single tap)	Function (tap and hold)
	application are involved.	
	If you only adjust the volume, you need to use this soft Key to return to the Map screen.	Opens the Navigation menu.
	Mutes all sounds of <b>GoDrive</b> .	Opens Sound settings.
	Switches between the daytime and night color schemes manually. This will not disable the automatic switching between the two schemes: the other color scheme returns at the next scheduled time.	Opens Color Profiles settings.
	3D buildings can be displayed on the map. Use this switch to suppress them temporarily.	Opens 3D Settings.
	Tap this soft Key and select the Vehicle type to be used for route calculation. Otherwise it is selected in Route Planning options in Settings. Changing the Vehicle type triggers an automatic route recalculation.	Opens Route Planning options.
	Turns track log recording on or off otherwise controlled on	Opens Manage Track Logs.

Name	Main function (single tap)	Function (tap and hold)
	the Manage Track Logs screen.	
	Opens the GPS Data screen with satellite information, data coming from the GPS receiver, and a shortcut to the GPS Settings screen if needed (GPS receiver detection is automatic).	No action.
	When a TMC receiver is connected to <b>GoDrive</b> , this soft Key opens the list of TMC messages, and provides access to the TMC Settings and the radio station settings screens.	No action.
	Opens the Bluetooth settings screen.	No action.

## GPS DATA SCREEN



Tap the following soft Keys:








to open the GPS Data screen and to see the status of the GPS reception.



Figure 3-14: GPS Status

Icon	Color	Name	Description
	Green	GPS position quality indicator	<b>GoDrive</b> has a connection to the GPS receiver and GPS position information is available in 3D: <b>GoDrive</b> can calculate both your horizontal and vertical GPS position.
	Yellow		<b>GoDrive</b> has a connection to the GPS receiver and GPS position information is available in 2D: only the horizontal position is calculated, <b>GoDrive</b> cannot calculate your vertical GPS position.




Icon	Color	Name	Description
	Grey		<b>GoDrive</b> has a connection to the GPS receiver but GPS position information is not available.
	Red		<b>GoDrive</b> has no connection to the GPS receiver.
	Green, blinking	GPS connection quality	<b>GoDrive</b> is connected to the GPS receiver.
	Yellow, blinking	indicator	<b>GoDrive</b> has no connection to the GPS receiver but it is still trying to establish a connection.
	Red, blinking		<b>GoDrive</b> has no connection to the GPS receiver and does not try to establish a connection.
Sky view circle			The virtual sky shows the visible part of the sky above you, with your position as the center. The satellites are shown at their current positions. The GPS receives data from both the green and yellow





Icon	Color	Name	Description
			satellites. Signals from the yellow satellites are only received, while green ones are used by the GPS to calculate your current location.
n/a	Coordinates		Your current GPS position in WGS84 format.
n/a	Status bar for the satellites		Dark bars are for the yellow and lit bars are for the green satellites. The more satellites your GPS tracks (the green ones), the better is your calculated position.

FIND MENU

Select the destination of your route. Tap the following soft Keys:




Soft Key	Description
 <p>Find Address</p>	If you know at least a part of the address, this is the quickest way to find the location.






	<p>You can select your destination from the thousands of POIs included with <b>GoDrive</b> or from the ones you have previously created.</p>
	<p>The destinations that you have already entered in <b>GoDrive</b> are available in the History list.</p>
	<p>You can select your destination by entering its coordinates.</p>
	<p>You can select as your destination a location that you have already saved as a Favorite.</p>
	<p>Opens a special 2D map screen optimized for route planning. Only the Zoom in and Zoom out soft Keys and the route modification soft Keys of the Cursor menu appear.</p>

## ROUTE MENU

Save, load and edit your routes. Tap the following soft Keys:











Soft Key	Description
	<p>Opens a screen with useful route data.</p>

Soft Key	Description
 Itinerary	You can browse the driving instructions that <b>GoDrive</b> follows during navigation. You can exclude maneuvers or streets to adjust the route to your preferences.
 Edit Route	You can modify the route: remove route points or change their order.
 Delete Route	Erase the active route with all its route points (start point, via points and destination). If you later decide that you need the same route, you will have to rebuild it from scratch.
 Save Route	You can save the active route for later use.
 Load Route	You can load a previously saved route for navigation.
<b>Settings</b>	Opens the Route settings screen with controls to modify the vehicle, the road types used for route calculation, or the route calculation method.
<b>Fly Over</b>	You can run a demonstration of the route at high speed.
<b>Simulate</b>	You can run a demonstration of the route at normal speed.

## MANAGE MENU

You can manage the content that **GoDrive** stores. Tap the following

soft Keys:  , .





Soft Key	Description
 Saved Routes	Renaming or deleting saved routes
 History	Deleting History items
 Track Logs	Recording, simulating, renaming or deleting track logs, assigning color to them to be shown on the map
 Favourites	Renaming or deleting Favorites
 POI	Creating, updating or deleting POIs Creating, updating or deleting POI groups Modifying POI visibility settings
 Saved Search Criteria	Creating, renaming or deleting Saved Search Criteria

## Manage Saved Routes

You can manage the previously saved routes. Tap the following soft





Keys:  ,  , .

Soft Key	Description
Soft Key with the name of the saved route	Opens the selected route for editing.




	Deletes the selected route.
	Clears the list of saved routes.
 , 	Turns the page for additional list items.






Manage History

You can manage the list of locations you used lately. Tap the following soft Keys:  ,  ,  .





Soft Key	Description
	Deletes the selected item in the History.
	Deletes the entire History.
 , 	Turns the page for additional list items.


Manage Track Logs

You can record Track Logs, then play them back, display them on the map, and see their details. Tap the following soft Keys:  ,  ,  .

Soft Key	Description
	Starts recording the track that you drive. (You can also start recording a track log in the Quick menu.)
	Stops the ongoing Track Log recording. (You can also stop the track log recording in the Quick menu.)
Soft Key with the name of the track log	Shows the details of the selected Track Log.
	Starts a simulated playback of the selected Track Log on the map.
 	Turns the page for additional list items.

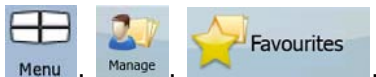
When track log details are shown:




Soft Key	Description
Soft Key with the name of the Track Log	Opens a keyboard screen to let you rename the Track Log.
	Tap this soft Key to hide the Track Log on the map. No color will be assigned to the Track Log.
	Tap one of the colored soft Keys to assign a color to the Track Log. The Track Log will be shown on the map with this color.
	The map returns with the Track Log. The map is scaled to show the whole Track Log.
	Deletes the selected Track Log.

	Saves the Track Log on the inserted memory card in GPX format.
--	--

## MANAGE FAVORITES

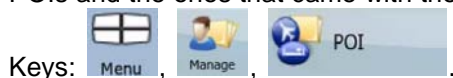
You can manage the list of your Favorites. Tap the following soft Keys:



Soft Key	Description
Soft Key with the name of the favorite	Opens the selected Favorite for editing.
	Deletes the selected item in the list of Favorites'.
	Clears the list of Favorites'.
	Turns the page for additional list items.










## Manage POIs

You can manage your POIs, and set the POI visibility for both your POIs and the ones that came with the product. Tap the following soft





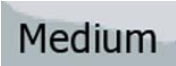


Soft Key / Icon	Description
Soft Key with the name of the POI group	Opens the list of the subgroups of this POI group. The new list behaves the same as this one.
Soft Key with the name and address of	Opens the selected POI for editing. Only the







Soft Key / Icon	Description
a POI item	POIs you have created appear in this list.
	Opens the selected POI group for editing.
	Tap to filter the list to contain only the POIs that you saved.
	Tap to see all POIs in the list.
	Creates a new POI group at the given group level.
	Turns the page for additional list items.
	This POI group is not shown on the map.
	This POI group and all its subgroups are shown on the map.
	This POI group and some of its subgroups are shown on the map.
	This POI group contains POIs that you saved.

When a POI group is open for editing:

Soft Key	Description
	Items in the POI group will not be shown on the map.

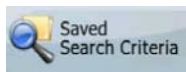
 	The distance soft Keys set the zoom level from which the items in the POI group will be shown on the map.
	Subgroups under the edited POI group will inherit its visibility settings.
Soft Key with the icon of the POI group	Tap this soft Key to select a new icon for the POI group.
	Deletes the edited POI group. You are only allowed to remove POI groups that you have created.




When a POI item is open for editing:

Soft Key	Description
Soft Key with the name of the POI	Tap this soft Key to rename the POI.
Soft Key with the icon of the POI	Tap this soft Key to select a new icon for the POI.
	Tap this soft Key to enter a telephone number for the POI.
	Tap this soft Key to enter additional information for the POI.
	Tap this soft Key to delete the selected POI.
	Tap this soft Key to move the POI to another POI group or subgroup.

## Manage Saved Search Criteria

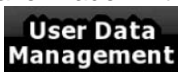
You can manage the list of search criteria previously saved to easily find frequently searched POI types. Tap the following soft Keys:




Soft Key	Description
Soft Key with the name of the Saved Search Criteria	Tap to rename the saved query.
	Deletes the selected item in the list.
<b>Clear All</b>	Deletes the entire list.
 	Turns the page for additional list items.
<b>&lt;Add new search&gt;</b>	Tap to save a new search criteria. Similar to how you search for a POI, select the search reference first, then select the POI group or subgroup to search in.

## User Data Management

You can manage the data you have saved (Pins, POIs, Favorites', History, and Track logs) , and the settings you have made in the





program. Tap the following soft Keys:


Soft Key	Description
Remove Pins	Map locations can be marked with Pins using the  soft Key in the Cursor menu. Tap this soft Key to remove all your Pins from the map.

Backup User Data	All user data and the current settings will be saved on the inserted memory card. There is always one backup file. If you perform a backup later, the previous backup will be overwritten with the new information.
Restore User Data	All user data and settings will be overwritten with the information stored in the backup file. Data and settings created after the latest backup will be lost.
Delete User Data	All user data will be deleted, and settings will return to their factory defaults.
Reset Factory Settings	All settings will return to their factory defaults, but no user data will be deleted.

SETTINGS MENU

You can configure the program settings, and modify the behavior of

**GoDrive.** Tap the following soft Keys:  , .

The Settings menu has two pages of submenus. Tap  to access the other options.

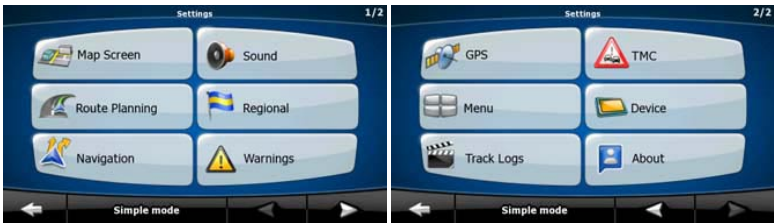















Figure 3-15 Settings Menu

Soft Key	Description
	You can fine-tune the appearance and content of the Map screen.


Soft Key	Description
 Sound	You can adjust the sounds of <b>GoDrive</b> .
 Route Planning	These settings determine how routes will be calculated.
 Regional	These settings allow you to adjust the application to your local language, measurement units, time and date and their formats, as well as choose the voice guidance profile you prefer.
 Navigation	You can control how <b>GoDrive</b> behaves during navigation.
 Warnings	You can enable some handy warnings, and disable the touch screen in a moving vehicle with Safety Mode.
 GPS	You can set up the connection to the GPS receiver.
 TMC	You can set up the connection to the TMC receiver. If the TMC receiver is working, you can select the radio station to be received.
 Menu	You can modify the look and behavior of the Menu screens.

Soft Key	Description
----------	-------------

Soft Key	Description
 Device	You can change some device settings to control the screen backlight when <b>GoDrive</b> is running.
 Track Logs	You can set up an automatic Track Log saving, and fine-tune its settings.
 About	This screen has no navigation feature. It merely provides information about the maps and licenses included with your navigation system.
 Simple Mode	You can switch to Simple mode. In Simple mode only a few of the above settings are available. The rest of the settings are set to values that are optimal for typical use.

Map Screen Settings

You can fine-tune the appearance and content of the Map screen.

Tap the following soft Keys:  Menu ,  Settings ,  Map Screen .

Soft Key	Description
----------	-------------

Soft Key	Description
Color Profiles	<b>GoDrive</b> is able to show the map and the menus in different colors during the day and during the night. Select the color profiles to be used in each mode, and select the automatic or manual switching between the daytime and night color profiles.
Elevation on 2D Map	2D maps can also display 3D information. These top-down maps can display elevation by colors and shading.
Show Street Names	Street names and POI icons can be disturbing on the map during navigation. With this switch you can suppress these map elements when <b>GoDrive</b> is following your position on the map. If you move the map, both the street names and POI icons reappear immediately.
Lane Information	Some maps contain lane information to help you position your car in the upcoming intersection. This setting tells <b>GoDrive</b> whether to display this information at the top or at the bottom of the map.

## Sound Settings

You can adjust the sounds of **GoDrive**. Tap the following soft Keys:



Soft Key	Description
Master Volume	Use the switch to mute all sounds of the device and then to re-enable them again. The position of the fader determines the volume level. The loudness of <b>GoDrive</b> is independent of your device settings. When you exit the program, the device default settings return.

Soft Key	Description
Voice Guidance Volume	The slider adjusts the loudness of voice prompts. In its leftmost position, the voice guidance is suppressed; in its rightmost position, the master volume applies.
Key Sounds	Key sounds are audible confirmation of either pressing hardware soft Keys or tapping the touch screen. The switch turns the key sounds on or off. Key sounds are played at the master volume level.
Dynamic Volume	When driving at high speed, the noise in the car may be too loud to clearly hear the voice guidance and other sounds. Using Dynamic Volume you can instruct <b>GoDrive</b> to increase the volume when your speed exceeds a certain minimum, and reach its highest volume at the given maximum speed.

## Route Planning Options


These settings determine how routes will be calculated. Tap the



following soft Keys:

Soft Key	Description
Vehicle	You can set the type of vehicle you will use to navigate the route. Based upon this setting, some of the road types will be excluded from the route (e.g. motorways for pedestrians), or some of the restrictions may not be taken into account (e.g. emergency vehicles have only a few restrictions).



Soft Key	Description
Road Types Used for Route Planning	To let the route fit your needs, you can also set which road types are to be considered for or to be excluded from the route, if possible. Excluding a route is a preference. It does not necessarily mean total prohibition. If your destination can only be accessed using some of the excluded road types, they will be used, but only as much as necessary. In this case a warning icon will be shown on the Route Information screen, and the part of the route not matching your preference will be displayed in a different color on the map.
Route Calculation Method	You can choose from different route types. The routing method can also be chosen while creating the route: when the destination is selected, tap  Routing Methods in the Cursor menu.
Use Traffic Information	When TMC messages are received, this setting tells <b>GoDrive</b> whether to use that information in route planning.
Recalculate to Avoid Traffic	This setting determines how <b>GoDrive</b> uses the received TMC information in route recalculation: <ul style="list-style-type: none"> <li>• Automatic: When route recalculation becomes necessary based on the received TMC events, <b>GoDrive</b> recalculates the route automatically.</li> <li>• Manual: When route recalculation becomes necessary based on the received TMC events, <b>GoDrive</b> notifies you, but you can decide whether to recalculate the route or not.</li> <li>• Disabled: TMC events are only taken account when the route is recalculated in an off-route situation.</li> </ul>

### Vehicle Types:

- Car

- Taxi
- Bus
- Emergency vehicles
- Bicycle
- Pedestrian

### Road Types Used for Route Planning:

Type	Description
Motorways	You might need to avoid motorways when you are driving a slow car or you are towing another vehicle.
Unpaved roads	<b>GoDrive</b> excludes unpaved roads by default: unpaved roads can be in a bad condition and usually you cannot reach the speed limit on them.
Toll roads	By default <b>GoDrive</b> includes toll roads (pay roads where there is a peruse charge) in the routes. If you disable toll roads, <b>GoDrive</b> plans the best toll-free route.
Charge roads	Charge roads are pay roads where you can purchase a pass or vignette to use the road for a longer period of time. They can be enabled or disabled separately from toll roads.
Permit needed	You might need a permit or permission from the owners to use certain roads or to enter certain areas. <b>GoDrive</b> excludes these roads from the route calculation by default.
Ferries	<b>GoDrive</b> includes ferries in a planned route by default. However, a map does not necessarily contain information about the accessibility of temporary ferries. You might also need to pay a fare on ferries.
Cross-border planning	In some cases the route calculated according to your other navigation and route preferences would lead through another country. If you wish to always stay within the same country, turn this option off.
Carpool lanes	This control appears only when navigating in the USA. You should check whether you are allowed to use

Type	Description
	carpool lanes before enabling this road type.

### Route Calculation Method types:

Option	Description
Fast	Gives the quickest possible route if you can travel at or near the speed limit on all roads. Usually the best selection for fast and normal cars.
Short	Gives a route that has the smallest total distance of all possible routes between the route points. Usually practical for pedestrians, cyclists or slow vehicles.
Economical	Combines the benefits of Fast and Short: <b>GoDrive</b> calculates as if it were calculating the Fast route, but it takes other roads to save petrol.
Easy	Results in a route with fewer turns. With this option, you can make <b>GoDrive</b> to take, for example, the motorway instead of series of smaller roads or streets.

### Regional Settings

These settings allow you to adjust the application for your local language, measurement units, time and date and their formats, as well as choose the voice guidance profile you prefer. Tap the



following soft Keys:

Soft Key	Description
Program Language	This soft Key displays the current written language of <b>GoDrive</b> . By tapping the soft Key, you can select a new one from the list of

Soft Key	Description
	available languages. The application will restart if you change this setting; you are asked to confirm this.
Voice Profile	This soft Key shows the current language of the voice guidance. By tapping the soft Key, you can select a new one from the list of available languages and speakers. Tap any of these to hear a sample voice prompt. Just tap OK when you have selected the new spoken language.
Units	You can set the distance units to be used by the program. <b>GoDrive</b> may not support all the listed units in some voice guidance languages. If you select a measurement unit not supported by the chosen voice guidance language, a warning message will appear.
Set Date & Time Format	You can set the date and time format. Various international formats are available.
Time and Time Zone Settings	You can access time and time zone settings. <b>GoDrive</b> helps you with correcting the device time to the ever accurate GPS time. <b>GoDrive</b> can also help you set the time zone based on your current GPS position.

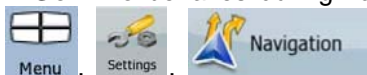
### Time and Time Zone Settings:

Soft Key	Description
Auto Time Correction to GPS	Use this feature to synchronize the clock of your device to the very accurate time provided by the GPS receiver.
Use Auto Time Zone	Use this feature to synchronize the time zone of the clock of your device to the time zone based on your current GPS position. This is useful if you travel abroad.

Soft Key	Description
Set Time Zone	Set time zone manually if you do not want to synchronize the time zone automatically. This allows you to use Auto Time Correction and apply a time zone offset to obtain the desired time.
Compare GPS and device times	The current time of the GPS receiver and the device clock are displayed. Please note that the GPS clock is only available with GPS reception. This allows you to check whether any correction is needed.

### Navigation Settings

You can control how **GoDrive** behaves during navigation. Tap the



following soft Keys:

Soft Key	Description
Keep Position on Road	This feature allows car drivers to always correct GPS position errors by matching the vehicle position to the road network. For pedestrian navigation, this feature is automatically disabled to let the software show your exact position. By turning off this feature you also turn off the GPS position error filtering. The position shown on the map will be subject to all position errors and position fluctuations.
Off-route Recalculation	This switch tells <b>GoDrive</b> whether to automatically recalculate the route when you deviate from it. If this feature is turned off, you need to initiate route recalculation manually otherwise navigation will be stopped until you return to the originally recommended route. Setting another point than the current GPS position as the start point of the active route will automatically disable this feature.


Soft Key	Description
Restore Lock-to-Position	If you have moved or rotated the map during navigation, this feature moves the map back to your current GPS position and re-enables automatic map rotation after the given period of inactivity.
Automatic Overview	<p>This feature switches the map view to Overview mode when the next route event is at a distance. Overview is a zoomed out 2D view to let you see the surrounding area. You have the following controls for Automatic Overview:</p> <ul style="list-style-type: none"> <li>• Turn Distance for Overview: The map view will be switched to Overview mode if the next route even is at least as far as this value.</li> <li>• Default Zoom Level: Overview mode will appear with this zoom level. You can scale the map in Overview mode but next time Overview appears again, this zoom level will be applied.</li> </ul>

## Warning Settings

You can enable some handy warnings, and disable the touch screen in a moving vehicle with Safety Mode. Tap the following soft Keys:



Soft Key	Description
Warn When Speeding	Maps may contain information about the speed limits of the road segments. <b>GoDrive</b> is able to warn you if you exceed the current limit. This information may not be available for your region (ask your local dealer), or may not be fully correct for all roads in the map. This setting lets you decide whether you wish to receive the warnings. You can set the relative speeding at which the application

Soft Key	Description
	<p>warns you (100% is the current speed limit):</p> <ul style="list-style-type: none"> <li>• In Built-up Areas: in cities and towns</li> <li>• Elsewhere: at all other locations</li> </ul> <p>There are two types of warnings. You can turn them on or off independently:</p> <ul style="list-style-type: none"> <li>• Audible Warning: A voice message is played using the selected voice guidance profile.</li> <li>• Visible Warning: A symbol with the speed limit appears in the corner of the map (for example:  ).</li> </ul>
Speed Camera Warning	<p>This feature allows you to receive a warning when approaching a Road Safety Camera. You must ensure on your own liability that using this feature is legal in the country where you intend to use it. You have the following options:</p> <ul style="list-style-type: none"> <li>• Audible Warning: beeps can be played while you are approaching the camera, or just alert sounds if you exceed the speed limit while approaching one of these cameras.</li> <li>• Visible Warning: the type of the camera and the controlled speed limit appears on the Map screen while you are approaching one of these cameras.</li> </ul>
Warn if Too Fast for a Pedestrian	<p>Enable this warning to be alert if pedestrian mode is activated and you drive fast. You are asked if you want to change to car navigation mode. This way you can be sure you will not be routed via one-way roads in the wrong direction as a pedestrian could, for example.</p>
Safety Mode	<p>Safety Mode disables the touch screen above 10 km/h (6 mph) to keep your attention on the road. While driving, you will not be able to set a new destination or to change settings. The only screen control that remains enabled is the gesture that puts you back on the Map screen.</p>

## GPS Settings


You can set up the connection to the GPS receiver. Tap the

following soft Keys:  ,  , .

Soft Key	Description
GPS receiver	The first line of the screen informs you about the connection status of the GPS receiver. Connecting the GPS receiver is automatic, so normally you will not need this screen of settings at all.
GPS Enabled	Turn the connection to the GPS receiver on or off. Turning off the GPS receiver can be useful for indoors use or demonstration purposes.
Port	The communication port used between the GPS receiver and the application.
Baud Rate	The communication speed used between the GPS receiver and the application.
Autodetect	Tap this soft Key to find and connect the GPS receiver.

## Menu Settings

You can modify the look and behavior of the Menu screens. Tap the

following soft Keys:  ,  , .



Soft Key	Description
Animation	You can activate and deactivate the Menu animations. When animation is turned on, soft Keys on Menu and keyboard screens appear in an animated way.
Background	You can choose the image to be used as the menu background image.



Soft Key	Description
Skin	You can choose from a list of available skins to change the look of <b>GoDrive</b> .

## Device Settings

You can change some device settings to control the screen backlight

when **GoDrive** is running. Tap the following soft Keys:  ,  ,



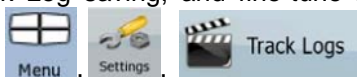
Soft Key	Description
Power Management	You can set how the backlight will behave when the screen has not been touched for a while. You have the following options: • Backlight Always On: The screen is continuously lit. • Use Device Settings: The backlight settings of the device will be applied in <b>GoDrive</b> . • Smart: When running on battery, Smart Powersave will light up the screen only when you press a soft Key, tap the screen, or if there is something to show you. After a few seconds the light level decreases, and after another few seconds the backlight turns off. This helps achieve a longer battery life.
Backlight Intensity at Daytime	You can set the backlight level for daytime use.
Backlight Intensity at Night	You can set the backlight level for night use.
Autorun Enabled	You can instruct the PDA to automatically run <b>GoDrive</b> when the memory card is inserted.
Set Screen Orientation	You can change the orientation of the screen when running. The screen orientation can follow the current orientation of the PDA, or you can set a fixed

Soft Key	Description
	orientation that is independent of the PDA settings.

## Track Log Settings

You can set up an automatic Track Log saving, and fine-tune its

settings. Tap the following soft Keys:



Soft Key	Description
Update Interval	This is how often track points will be saved. Position information is normally received once a second from the GPS. If you do not need such a detailed log, you can increase this number to save track log space.
Enable Auto-saving	When auto-saving is enabled, you do not need to turn track log saving on and off manually. <b>GoDrive</b> will automatically start recording the track log as soon as GPS position is available.
Track Log Database Size	This figure shows how much memory is used by the automatically saved track logs.
Track Logs Max. Size	You can set the maximum database size for the automatically saved track logs. When the limit is reached, the oldest automatically saved track logs will be deleted.
Create NMEA/SIRF Log	Independently of the normal track log, you can record the native GPS data received from the GPS device. These logs are saved as separate text files on the memory card, and they cannot be shown or replayed in <b>GoDrive</b> .

## 4. MULTIMEDIA

The all-in-one versatile AV8OR provides several multimedia programs, such as listening to music, viewing photos, watching a movie, reading an Ebook or listening to XM Radio. Tap the



icon on the Main Menu (Refer to Figure 1-9) to go to the Multimedia menu page.

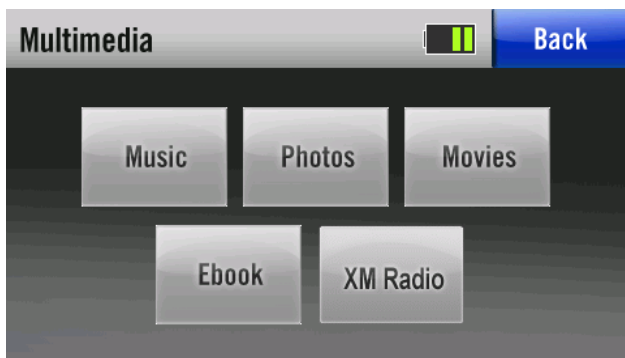



Figure 4-1: Multimedia Menu

### MUSIC PLAYER



To enter the music player service, tap the  icon on the Multimedia menu.

The Music program opens to the default Multimedia/music folder on the SD card as shown in the figure below.

The music player supports the following audio formats:

- MP3
- WMA.



Figure 4-2: Music Player – Searching for a Music File

Double tap on a music file to select and play it.

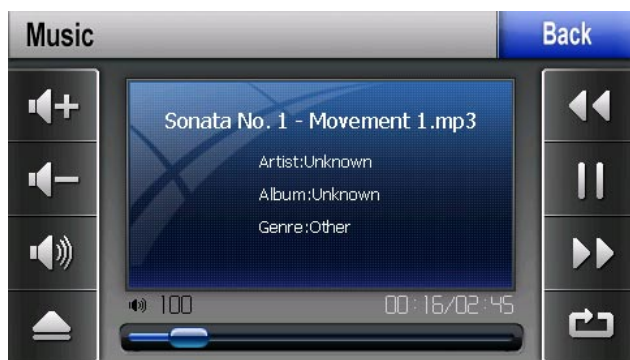




Figure 4-3: Music Player – Playing Music

Tap the  icon to return to the Multimedia menu page.

## PHOTOS

To enter the photo browser service, tap the  icon on the Multimedia menu.

The Photo program opens to the default Multimedia/photo folder on the SD card as shown in the figure below.

The photo browser supports the following image formats:

- BMP

- JPG
- GIF
- PNG

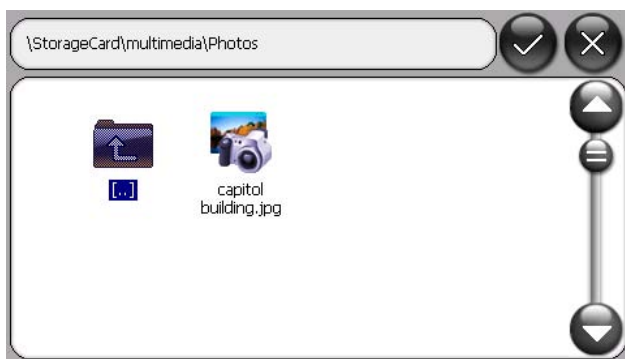




Figure 4-4: Photo Browser – Searching for a Photo  
Double tap on a picture to display it.



Figure 4-5: Photo Browser – Viewing a Photo

Tap the  icon to return to the Multimedia menu page.

## MOVIE PLAYER

To select a movie to view, tap the  icon on the Multimedia menu page.

The Movie program opens to the default Multimedia/movies folder on the SD card as shown in the figure below.

The movie player supports the following video formats:

- AVI
- WMV
- MPG
- ASF

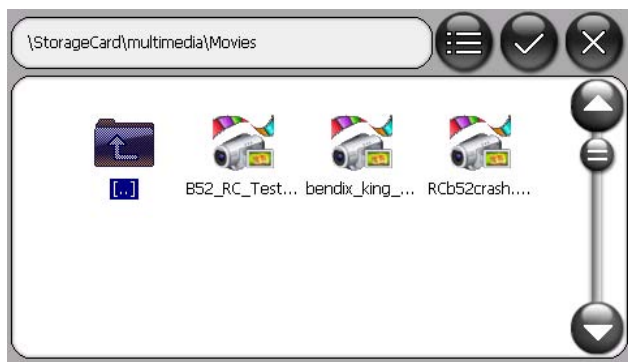



Figure 4-6: Movie Player – Searching for a Movie


Double tap on a movie file to play the movie.



Figure 4-7: Movie Player – Playing a Movie

Tap the  icon to return to the Multimedia menu page.

## EBOOK READER

To read an Ebook, tap the  icon on the Multimedia menu.

The Ebook program opens to the default Multimedia/ebooks folder on the SD card. The Ebook program can only read text files.

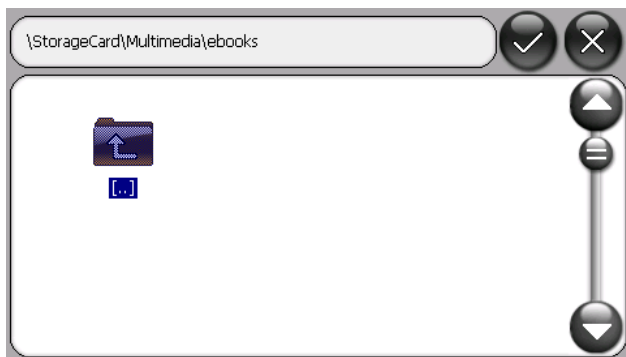


Figure 4-8: Ebook Reader – Searching for a Book

Double tap on one of the Ebook files to open in the Ebook reader.

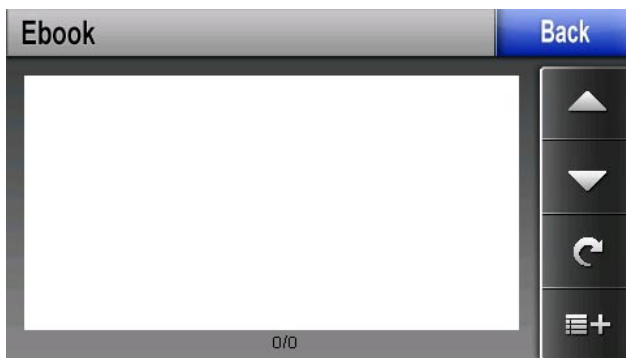



Figure 4-9: Ebook Reader

Tap the  icon to return to the Multimedia menu page.

## XM TUNER

Tap the **XM TUNER** icon on the Multimedia menu to show the XM Radio page. From the XM Radio page, you can scroll through the list of available channels, select a channel to listen to, select a channel category, add a channel to your “Favorites” category or activate your XM subscription.



Figure 4-10: XM Radio Page

## XM Weather and Radio Setup

1. Tap on the Radio Status soft key to activate either XM weather or XM radio or both. The XM Status page is displayed. The Radio ID for the XM receiver shows to the right of the Serial Number label as shown below??. The Radio ID is also on the bottom on the WxWorx XM receiver.

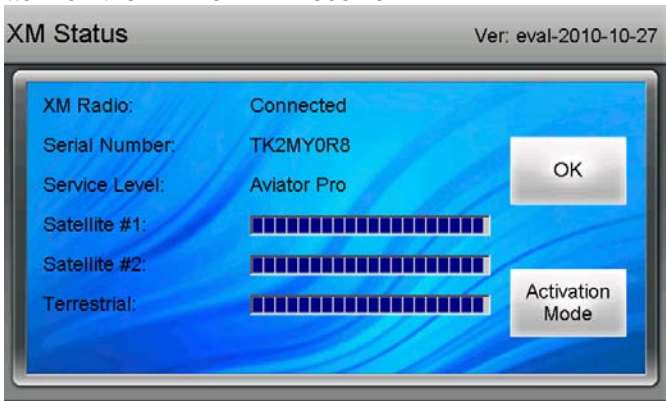


Figure 4-11: XM Status Page



2. With your Radio ID number ready, call XM's Listener Care at 800-985-9200 to subscribe to the XM WX and/or XM Radio services. For prompt service, be sure to also have your data package choice and payment option ready when you call.
3. After you have subscribed to the XM WX and/or XM Radio services, tap on the **Activation Mode** soft key.
4. It may take up to an hour to begin receiving XM data. Make sure that the GPS is in an area where good satellite reception is available. Make sure the AV8OR unit is fully charged or is operating off of AC/DC power instead of the internal battery so enough power is available to finish the activation sequence.
5. Once XM data is received, the Service Level field will show. This indicates that the XM receiver has been activated and XM services are available for use. Tap the **Normal Mode** soft key to exit the Activation Mode.

To return to the XM Radio page, tap on the **OK** soft key.

## XM Radio Tuning

The main XM Radio page shows a scrollable list of the XM radio channels that are available and soft keys on the bottom of the page.

**NOTE:** Due to limitations with the WxWorx XM receiver, only the first eight characters of the Artist and Song Title are available to be displayed. Therefore, you may find that some artists and song titles are truncated in the display at the top of the XM Radio page.

To select a channel, use the scroll bar on the right to scroll to the channel you want to listen to and tap on the channel to highlight it. Tap on the **Select Channel** soft key to select it.

To select a category, tap on the  soft key on the upper right side of the screen to show the XM Categories page as shown below.

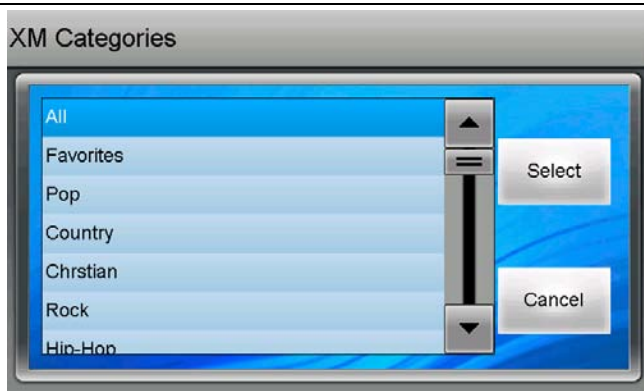



Figure 4-12: XM Categories Page

Use the scroll bar on the right to scroll to the category you want to listen to and tap on the category to highlight it. Tap on the **Select** soft key to select the category or tap on the **Cancel** soft key to cancel selection. Once the category is selected, highlight the channel you want to listen to from the filtered list and tap the **Select Channel** soft key to start reception of the channel.

To add a channel to a list of favorites, highlight the channel and tap the **Add to Favorites** soft key.


Tap the **Favorites** soft key to select a channel from a list of favorites. The **Favorites** soft key does not show until at least one favorite has been added to it.

Tap the  icon to return to the Multimedia menu page.

## DOWNLOADING MULTIMEDIA FILES

Refer to the Downloading/Uploading files from/To PC section on page 6-4 in chapter 6 - Appendix for instructions on how to download multimedia files to the AV8OR.

## 5. SYSTEM SETTINGS

The user can customize how the AV8OR operates and adjust system settings in the Settings page. Tap the  soft key on the Main Menu page to enter the Settings page.

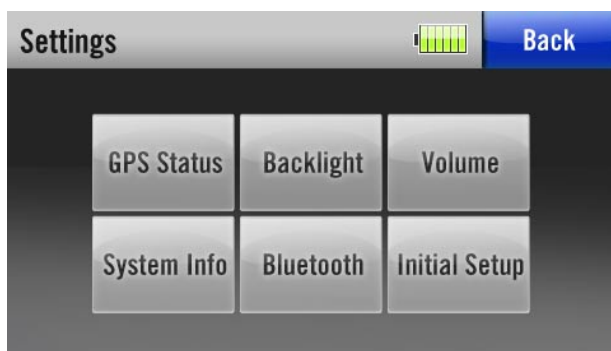


Figure 5-1: Settings Page

Tap the  soft key to return to the Main Menu.

### GPS STATUS

To enter the GPS status page, tap the “**GPS Status**” soft key on the Settings page. This option should only be used if the **Go Fly** or **GoDrive** Navigation Applications are not running. Ensure Navigation Applications are exited prior to trying to access this GPS Status Page. More information on the GPS Status page is located on the **Getting satellite signals** section on page 1-11.

### BACKLIGHT BRIGHTNESS

To enter the Backlight page, tap the “**Backlight**” soft key on the Settings page.

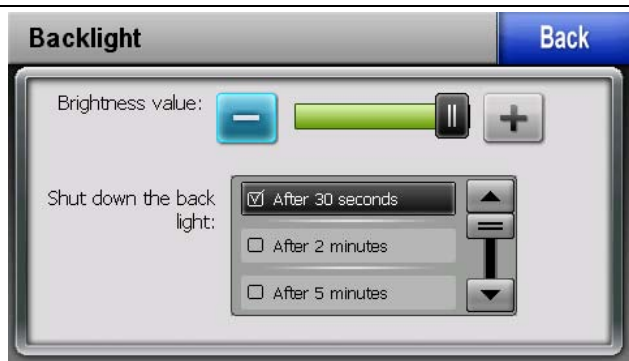







Figure 5-2: Backlight Page

## Backlight control bar

To increase the brightness, tap the  icon. To decrease the brightness, tap the  icon. You can also drag the  soft key left or right or tap either side of the  bar.

## Backlight shutdown setting

Select the wait time to turn off the backlight from the “Shut down the backlight” list.

Tap the  icon to return to the Settings page.

## VOLUME

Tap the “**Volume**” soft key on the Settings page to enter the Volume page.

The settings on the Volume page control the volume of the touch-screen operation and the Menu soft key tapping

This page allows the user to set the maximum volume for the unit. The volume control knob on the left side of the unit can adjust the volume from Zero up to the level set on the volume page. To set the

volume on the volume page, first set the volume control to maximum (up). Refer to Figure 5-3.



Figure 5-3: Volume Control


## Enable/disable audio output



Tap the  icon to enable or disable the audio output.

## Volume control bar




To increase volume, tap the  icon. To decrease volume, tap



the  icon. You can also drag the  soft key left or right or

tap either side of the  bar.



Tap the  icon to return to the Settings page.

## SYSTEM INFO

To enter the System Info page, tap the “**System Info**” soft key on the Settings page.



Figure 5-4: System Info Screen

## BLUETOOTH

To enter the Bluetooth page, tap the **"Bluetooth"** soft key on the Settings page to display the Bluetooth Manager page.



Figure 5-5: Bluetooth Manager Page

The Bluetooth Manager page has the following functions:

- Back: Returns to the previous page.
- Up and Down Arrows: Scrolls the list up and down.
- Add Device: Goes to the Add Device page for the device selected.
- Delete Device: Goes to the Delete Device page for the device selected

- **Connect/Disconnect:** If the selected device is not connected, this soft key is labeled "Connect". When AV8OR attempts to make a connection to the selected device. If the selected device is connected this soft key is labeled "Disconn". When touched the device is disconnected from AV8OR.
- **Phone:** Goes to the Phone page.
- **About:** Goes to the About page.

To pair to a device with Bluetooth, do the following steps:

- Prepare your Bluetooth device to be discovered.
- Tap on the Add Device page to open the Add Device Page.



Figure 5-6: Bluetooth – Add Device Page

A search is performed for all available Bluetooth devices. When the search is completed, all devices that have at least one feature that has not been previously paired to AV8OR are displayed.

Tap the **Search Again** soft key to do the search over.

Highlight the device you wish to pair and tap the **Pair Device** soft key to display the Pair Device page as shown below.

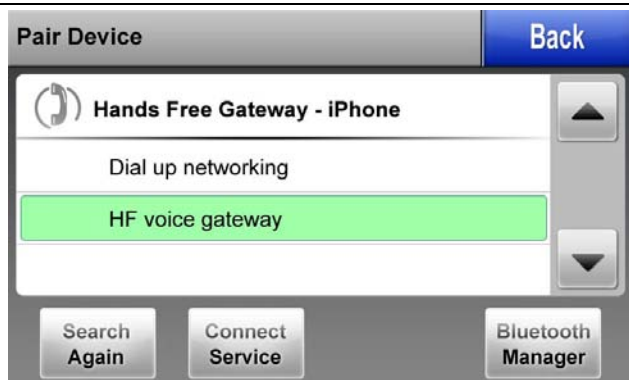


Figure 5-7: BlueTooth – Pair Device Page

The selected device is listed on the first line.

The services provided by the selected device are indented and listed on the following lines. When the user touches the desired service, that line is highlighted.

Double tap on the desired service to start the pairing process or tap once on the desired service and tap on the **Connect Service** soft key.

*If Dial up networking is selected, the Service Providers page is displayed.*

Tap the **Search Again** soft key to do the search over.

Tap on the Bluetooth Manager soft key to return to the Bluetooth Manager Page.

If a passkey Entry is required during the connection, the Passkey Entry Page will display as shown below.





Figure 5-8: Bluetooth – Passkey Requested Page

Enter the passkey for the device you are connecting and tap on the **OK** soft key to return to the previous menu.

## Service Providers Page

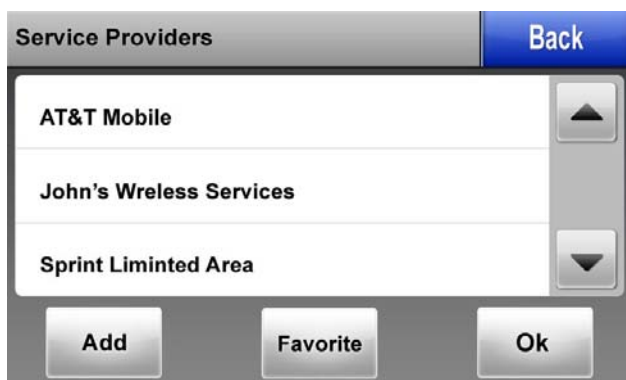


Figure 5-9: Bluetooth – Service Providers Page

This page allows the user to set up the Dial-Up Network (DUN).

The page displays all of the available service providers.

Tap on the **Add** soft key to set up a new provider.

Tap on the **Favorite** soft key to select from previously connected service providers.

Tap on the OK soft key to approve the network selection. If necessary, the DUN Setup Page will show. After the network selection is approved, the Pair Device Page displays again.

## DUN Setup Page

The screenshot shows a software interface for setting up a Dial-Up Network. At the top, there is a grey header bar with the text "Dial-Up Network – Setup Page" on the left and a blue "Back" button on the right. Below the header is a white rectangular form area. Inside this form, there are five labeled input fields: "Connection Name" with the text "CMNET" entered and highlighted in green; "Phone Number" with the text "99#" entered; "User Name" which is empty; "Password" which is empty; and "Domain" which is empty. Below the form area, centered at the bottom of the screen, is a grey "Ok" button.

Figure 5-10: Bluetooth – DUN Setup Page

This page lets the user to enter the following data:

- Connection Name
- Phone Number
- User Name
- Password
- Domain

After entering the above data, tap on the **OK** soft key to accept the data and initiate the DUN connection.

## DUN Favorite Provider Selection Page

The Favorite Service Providers page is entered when the **Favorite** soft key is tapped on the Service Providers Page as shown below.

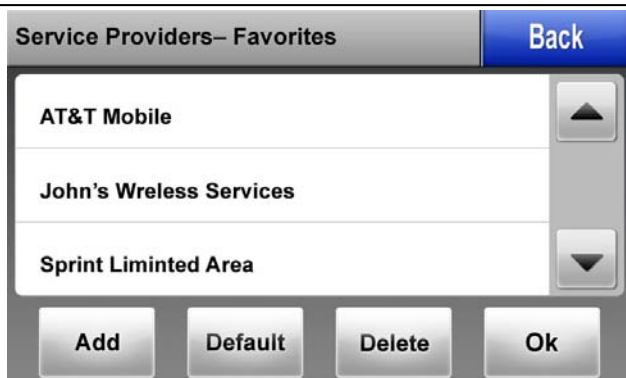


Figure 5-11: Bluetooth – DUN Favorite Provider Page

This page lets the user to enter the following data:

- Connection Name
- Phone Number
- User Name
- Password
- Domain

After entering the above data, tap on the **OK** soft key to accept the data and initiate the DUN connection.

## INITIAL SETUP

To enter the Initial Setup page, tap the “**Initial Setup**” soft key on the Settings page. The Initial Setup Menu page is displayed as shown below.

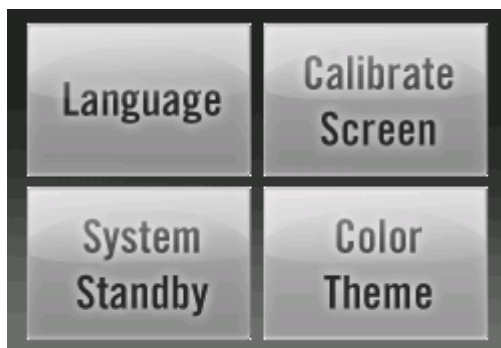


Figure 5-12: Initial Setup Menu Page

Tap on the **Language** soft key to select the language from the available language list. Tap the Back button to return to the Initial Setup Menu page when done.

Tap on the **Calibrate Screen** soft key to display a blank screen with crosshairs shown in the middle of the screen. Tap on the exact center of the crosshairs. The crosshairs will move to a new location. Continue tapping on the exact center of the crosshairs until the calibration is complete and the screen returns to the Initial Setup Menu page.

Tap on the **System Standby** soft key to put the system into Standby mode.

Tap on the **Color Theme** soft key to select the color scheme from the list of available colors. Tap on the **Back** soft key to return to the Initial Setup Menu page.

When finished, tap on the **Back** soft key to return to the main menu.

## 6. APPENDIX

### ACRONYMS AND ABBREVIATIONS

Acronyms and abbreviations used in this guide are defined as follows:

#### TERMS DEFINITION

##### **A**

ALT altitude

ATC air traffic control

AUTO automatic

##### **B**

BRG bearing

##### **C**

CDI course deviation indicator

COG center of gravity

COM communication

##### **D**

DIS distance

DTK desired track

##### **E**

ELEV elevation

ESA en route safe altitude

ETA estimated time of arrival

ETE estimated time en route

ETT-WPT estimated time to WPT

EXT external

##### **F**

FPLAN flight plan

ft feet

##### **G**

GND ground

GNDSPEED groundspeed

GPS global positioning system

GPS-ALT GPS determined altitude

GS ground speed

##### **H**

HSI Horizontal situation indicator

##### **I**

ICAO International Civil Aviation Organization

ID identification

IFR instrument flight rules

INT internal

## **K**

km kilometers

kts nautical miles per hour

## **L**

LAT latitude

LCD liquid crystal display

LON longitude

LONG longitude

LTNG lightning

## **M**

M meters

METAR meteorological aviation report

MFD multifunction display

MGRS military grid reference system

MOD modification

MPH statute miles per hour

MSA minimum safe altitude

MSL Mean sea level

## **N**

NAV navigation

NAVAID Navigation/aI Aid

NCD non-computed data

NDB non-directional beacon

nm nautical miles

NMEA national marine electronics association

NVM non-volatile memory

## **O**

OBS omni-directional bearing selector

## **P**

PBRG pointer bearing

PC personal computer

PDIS pointer distance

PIN personal identification number

POS position

PTR pointer

## **R**

RMA return material authorization

RNG range

## **S**

SBY standby

sm statute miles

SPD speed

STBY standby

STRK strike

SUA special use airspace

## **T**

TA traffic alert

TAU protective area around aircraft

TCAS Traffic alert and collision avoidance system

TIS traffic information service

TOPO topographical data (i.e. coastlines, terrain, rivers, lakes and so on)

TRFC traffic

TRK actual track

TST test

TTS track to steer

## **U**

USB universal serial bus

UTC universal coordinated time (same as Greenwich Mean Time)

UTM universal transverse Mercator

## **V**

VFR visual flight rules

VOR very high frequency omni-directional radio range

VRP visual reference point

VSD vertical situation display (Smart Profile)

## **W**

WPT Waypoint

## **X**

XTK cross track error

## DOWNLOADING/UPLOADING FILES FROM/TO PC

- Turn on the power to the AV8OR and let AV8OR boot up to the main menu.
- Use the included PC/USB cable (part number 005-03702-0004) to attach from the AV8OR to a USB port on a P/C.
- A connection symbol shows on screen. The AV8OR modes cannot be used while AV8OR is connected to the PC.



Figure 6-1: Connection to USB port.

- Configure the PC to connect the AV8OR as an external drive to view files as shown in the figure below.





Figure 6-2: Configure AV8OR as external drive

**NOTE:** The SD card can also be removed from the AV8OR and plugged into a compatible SD card slot on a PC to transfer files.

Refer to the [bendixking.com/av8or](http://bendixking.com/av8or) website for instructions on how to download software and database file updates from the PC to the SD card in the AV8OR.

Use the directory structure in the table below to download/upload files to the SD card:

Table 6-1 Directory Structure

Directory	Description
\GoDrive	Root level for Car Navigation Software
\GoFly	Root level for Aviation Software
\GoFly\data	Storage location for Aviation data

<b>Directory</b>	<b>Description</b>
<b>\GoFly\data\Vector</b>	Storage location for all databases
<b>\GoFly\data\System</b>	Storage location for NVM data
<b>\GoFly\data\user</b>	Storage location for user data
<b>\GoFly\data\user\Notepads</b>	Storage location for user checklists
<b>\GoFly\data\user\Flight Logs</b>	Storage location for user flight logs
<b>\Multimedia</b>	Root level for all Multimedia
<b>\Multimedia\books</b>	Storage location for E-books
<b>\Multimedia\movies</b>	Storage location for movies
<b>\Multimedia\music</b>	Storage location for music
<b>\Multimedia\photos</b>	Storage location for photos

### **CAUTION**

Make sure that any multimedia files that are downloaded only go into the correct multimedia subdirectory.

### **CAUTION**

Deleting or changing files in the GoDrive or GoFly directories on the SD card may make the aviation or automotive navigation programs unusable.

## CONNECTION TO AN EXTERNAL GPS SOURCE


The AV8OR will accept external GPS source data via the RS 232 interface and can be used as a non-certified display of GPS data. Below is a list of a few RS 232 GPS units that have been evaluated. Reminder: The AV8OR only provides for one RS 232 interface.

### Bendix/King KLN-94

### Garmin© GNS 430/430W/530/530W

To configure the AV8OR to receive external position and flight plan data, perform the following steps:



From the Aviation Main Menu, tap the  soft key to open the System Setup Menu.

Highlight the **Device Setup** option and tap the **SELECT** soft key to show the Device and Port Setup page.

The AV8OR must be set up so that the Position Port is configured as "Serial" and the Flight Plan Port is configured as "External". The type must be set as AR-NAV.

On the Device and Port Setup page, the configuration steps are:

- If the Weather Source is set to Serial, it must be changed to either **Bluetooth** or **None**.
- Set the Position Port to "**Serial**".
- Set the Flight Plan Port to "**External**".
- Set the Position Type to "**AR-NAV**". This will change the Flight Plan Type to "ENH AR-NAV".

When finished the Device and Port Setup page should look like Figure 6-3.

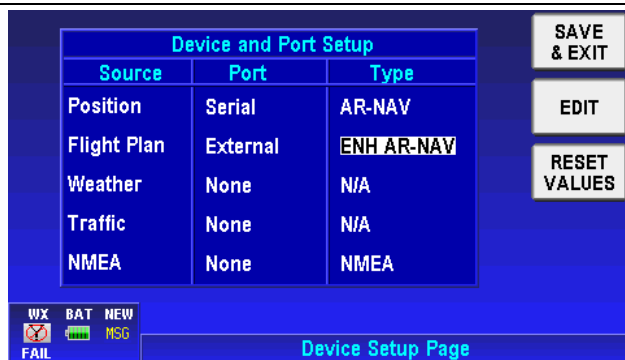


Figure 6-3: External GPS Setup Screen

The interconnect between the Bendix/King KLN 94 and the AV8OR is as follows:

Table 6-2 KLN 94 Pinouts

<u>KLN 94 Signal Name</u>	<u>KLN 94 Pin Out</u>	<u>AV8OR Signal Name</u>	<u>AV8OR Pin Out</u>
GENERAL RS-232 OUT	P941-2	RS 232 RX	DB9-2
GENERAL RS-232 IN	P941-1	RS 232 TX	DB9-3
AIRCRAFT GROUND	P941-14	GROUND	DB9-5

The wiring interconnect between the GNS 430/430W/530/530W and the AV8OR is as follows:

Table 6-3 GNS 430/430W/530/530W Pinouts

<u>GNS430/530 Signal Name</u>	<u>GNS430/530 Pin Out</u>	<u>AV8OR Signal Name</u>	<u>AV8OR Pin Out</u>
GPS RS-232 OUT 1	P5001-56	RS 232 RX	DB9-2
GPS RS-232 IN 1	P5001-57	RS 232 TX	DB9-3-
AIRCRAFT GROUND	P5001-77,78	GROUND	DB9-5

## CONNECTION TO AN EXTERNAL WEATHER SOURCE

### Bendix/King KDR-610 Setup

To configure the AV8OR to receive weather data from the KDR-610, perform the following steps:



From the Aviation Main Menu, tap the **Settings** soft key to open the System Setup Menu.

Highlight the **Device Setup** option and tap the **SELECT** soft key to show the **Device and Port Setup** page.

On the Device and Port Setup page, the configuration steps are:

- If the **Position Source** is set to **Serial**, it must be changed to **Internal** or **Bluetooth** since there is only one RS232 port available.
- Set the Weather **Port** to **Serial**.
- Set the Weather **Type** to "**KDR-610**". When finished the Device and Port Setup page should look like Figure 6-4.

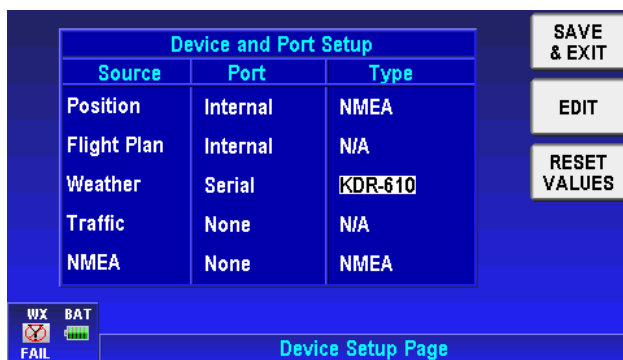


Figure 6-4: Weather Setup – KDR-610

The output of the KDR 610 is RS 422. You must use an RS 422 to RS 232 converter to change the KDR 610 differential outputs to the single ended levels that the AV8OR requires. This converter is installed between the KDR 610 and the AV8OR.

An RS 232 to RS 422 Converter can be purchased from Telebyte, Model 253 (telebyteusa.com).

The pinouts for the Bendix/King KDR 610 and the AV8OR are as follows:

Table 6-4 KDR 610 Pinouts

<b>KDR 610 Signal Name</b>	<b>KDR 610 Pin Out</b>	<b>AV8OR Signal Name</b>	<b>AV8OR Pin Out</b>
422TXH	P6101-15	RS 232 RX	DB9-2
422TXL	P6101-33		
GROUND	P6101-37	GROUND	DB9-5

## WxWorx XM Weather Receiver Serial Setup

To configure the AV8OR to receive weather data from the WxWorx XM Weather Receiver, perform the following steps:

Attach the cable from the WxWorx XM Weather Receiver (supplied with the WX XM Weather Receiver) to the USB port on the AV8OR.



From the Aviation Main Menu, tap the **Settings** soft key to open the System Setup Menu.

Highlight the **Device Setup** option and tap the **SELECT** soft key to show the **Device and Port Setup** page.

On the Device and Port Setup page, the configuration steps are:

- If the **Position Source** is set to **Serial**, it must be changed to **Internal** or **Bluetooth** since there is only one RS232 port available.
- Set the Weather **Port** to **Serial**.
- Set the Weather **Type** to "**WxWorx**". When finished the Device and Port Setup page should look like Figure 6-5.

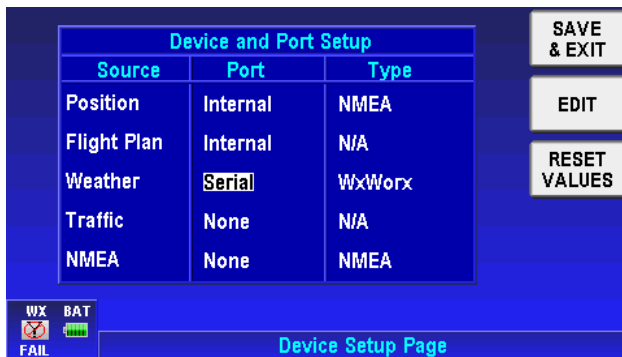




Figure 6-5: WxWorx XM Weather Setup

Refer to the XM Weather and Radio Setup section on page 4-6 for information on how to activate your subscription to XM weather.

## WxWorx XM Weather Receiver Bluetooth Setup

To configure the AV8OR to receive weather data from the Bluetooth version of the WxWorx XM Weather Receiver, perform the following steps:

Setup the WxWorx receiver in the **Device and Port Setup** page as follows:

1. On the Main Menu page, tap the  soft key to start the Aviation mode navigation program.
2. From the Map page, tap on the **MAIN MENU** soft key to go to the Aviation Main Menu.
3. Tap the  soft key to open the System Setup Menu.
4. Highlight the **Device Setup** option and tap the **SELECT** soft key to show the **Device and Port Setup** page.
5. Set the Weather **Port** to **BlueTooth**.
6. Set the Weather **Type** to **"WxWorx"**. When finished the Device and Port Setup page should look like in Figure 6-6.

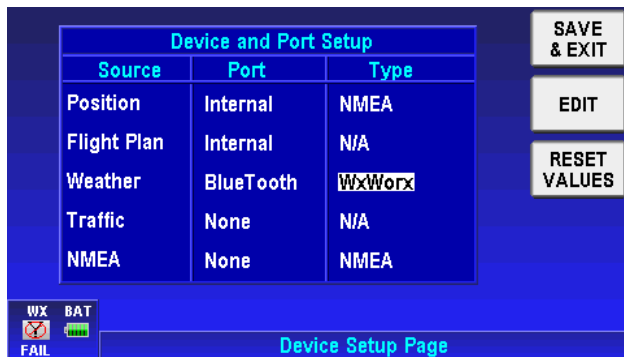


Figure 6-6: WxWorx Bluetooth Receiver Setup

Establish a paired connection between the WxWorx XM receiver and the AV8OR.as follows:



1. From the **MAIN MENU**, touch the **SETTINGS** soft key, and then touch the Bluetooth soft key to display the Bluetooth Manager Page.



Figure 6-7: Bluetooth Manager Page

2. This page shows the devices that have been previously paired with AV8OR. If the WxWorx Receiver has not previously been paired with AV8OR, tap on the **Add Device** soft key to start the connection process. The Bluetooth manager searches for all available Bluetooth devices that have not been previously paired with the unit and displays them on the screen as shown below.



Figure 6-8: Add Bluetooth Device

3. Highlight the WxWorx Receiver option and tap on the **"Pair Device"** soft key. The Pair Device is page is displayed.

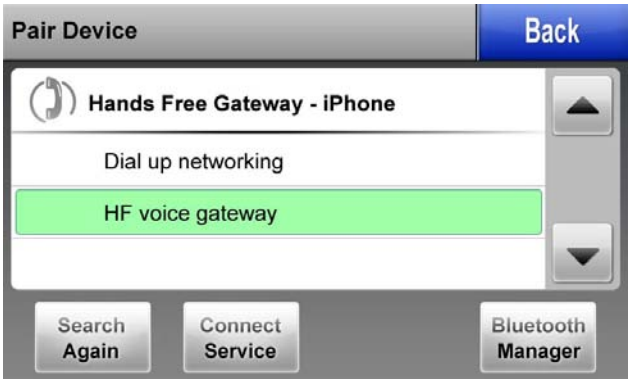


Figure 6-9: BlueTooth – Pair Device

4. Highlight the “Bluetooth Serial Port” option and then tap on the Connect Service soft key to start the connection process and display the Passkey Entry Page.



Figure 6-10: BlueTooth Passkey Required

5. Enter the Passkey supplied with your WxWorx receiver “9679” and then touch the “OK” soft key to continue connection to the device. A “Connecting” message is displayed.



Figure 6-11: BlueTooth Connecting

6. After the WxWorx Receiver is paired, it is displayed in the Bluetooth Manager page as shown below.



Figure 6-12: Bluetooth WxWorx Connection Established

## CONNECTION TO AN EXTERNAL TRAFFIC SOURCE

### Zaon XRX - Serial Setup


#### CONFIGURATION OF THE ZAON XRX

To configure the Zaon XRX, perform the following steps:

- Using the XRX AIRCRAFT menu, set the aircraft type as appropriate for your aircraft as described in the ZAON users Manual.
- Using the XRX RANGE menu, set the horizontal detection range to 6 nm radius.
- Using the XRX ALTITUDE menu, set the altitude limitation to 2500 ft.
- Using the XRX COM menu, set the third party communications to PROFILE 1.
  - Verify the XRX configuration switches are set as described in the XRX Users Guide for third-party output.
- Press Mute to return to the traffic screen. This screen will show "PROFILE 1".
- Set the configuration switches on the Zaon XRX to the correct configuration to use the RS-232 output.

#### CONFIGURATION OF AV8OR

To configure the AV8OR to receive external traffic data, perform the following steps:

- If the Weather Source is set to **Serial**, it must be changed to Bluetooth or None.
- From the Aviation Main Menu, tap the  soft key to open the System Setup Menu.
- Highlight the **Device Setup** option and tap the **SELECT** soft key to show the Device Setup page.
- The AV8OR must be set up so that the Traffic Port is configured as "**Serial**". The Type must be set as "**ZAON Traffic**".
  - On the Device Setup page, the configuration steps are:
  - Change any port that is set to "**Serial**" to either "**BlueTooth**" or "**None**" as only one serial port is available.
  - On the Traffic row, set Port to "**Serial**".

- On the Traffic row, set Type to **“ZAON Traffic”**.

When finished the Device Setup page should look like the figure below.

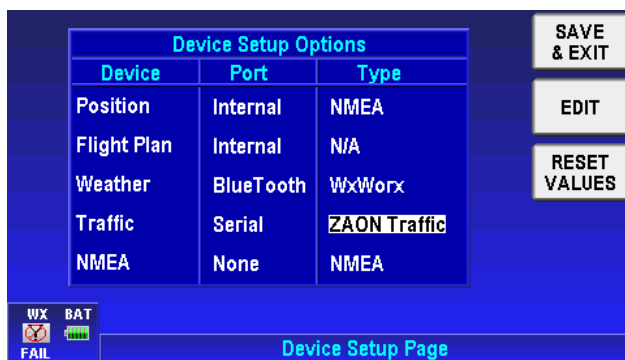


Figure 6-13: Device Setup Page – Traffic

- Tap on the **SAVE & EXIT** soft key to save changes.

Use the Honeywell RS-232 connector (PN 005-037-02-0017 available at [bendixking.com/av8or](http://bendixking.com/av8or)) to connect the Zacon XR to the mini USB port on the AV8OR.

## Zacon XR - Bluetooth Setup

The Zacon XR requires an optional Bluetooth module to synchronize with other Bluetooth devices. The AV8OR supports a Bluetooth connection to the Zacon XR after the optional module has been installed on the Zacon XR. Refer to the User's manual for the Zacon XR Bluetooth module for details on how to connect to the Zacon XR.

## EXTERNAL FLIGHT PLANS

### Jeppesen FliteStar® PC Application

The AV8OR can use flight plans created by the Jeppesen FliteStar® PC application. Flight plans can be created and modified using the Jeppesen tool. The flight plans need to be saved using the “Export as Text” option, with the filename “Route.txt”.

This file must then be transferred to the SD card and stored in the GoFly\data\user directory.

When creating routes using the Jeppesen FliteStar© tool, only the WPTs under the "route" directory should be exported. If there are identifiers, airports, WPTs, etc in the "Other Charts" directory they will be appended to the end of the flight plan when it is exported. When this flight plan is imported into AV8OR, the extra items will be treated as extra WPTs resulting in a flight plan different than the one created using FliteStar©.

## SUBSCRIPTIONS AND UPDATES

The latest available subscriptions for the GoFly program are at [bendixking.com/av8or](http://bendixking.com/av8or) after login:

### Bendix/King Subscriptions:

#### GOFLY NAVIGATION DATA SUBSCRIPTIONS

– Subscriptions are available for the three following areas:

- Americas
- Atlantic
- Pacific

Refer to the chart below for the coverage available for each area.

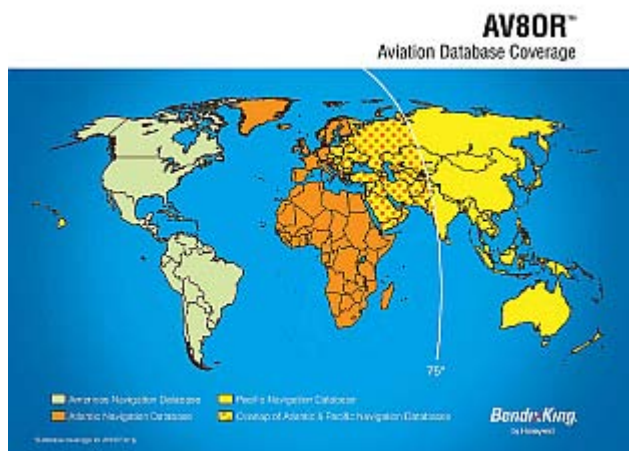


Figure 6-14: Navigation Data Subscription Coverage

## **GOFLY FUEL PRICING AND AIRPORT SERVICES**

- All US only

### **Other Subscriptions:**

#### **GOFLY AIRPORT DIAGRAMS:**

An **Airport Diagrams** subscription for the GoFly program is available from Seattle Avionics ([seattleavionics.com/av8or](http://seattleavionics.com/av8or)). Once subscribed, an automatic charts download utility called the "Data Manager" will need to be installed on your home computer. The data manager automatically downloads Airport Diagrams and update your AV8OR any time that it is plugged into your PC via the USB cable. Refer to the Seattle Avionics website for more information about the Airport Diagrams subscription and the Data Manager software.

#### **GOFLY XM WEATHER:**

Call WxWorx at 1-800-985-9200 to purchase an XM Weather subscription. The XM weather subscription options are available on the WxWorx website at **wxworx.com**.

#### **GODRIVE AUTOMOTIVE MAPS**

Automotive maps are provided by Nav-n-Go. Map and software updates are available at **naviextras.com**. One free automotive database update is available upon purchase of an AV8OR system or SD card which includes automotive mapping after 1/1/10. For any GoDrive and automotive mapping support issues, visit Nav-n-Go at **naviextras.com**.

### **Updates:**

The following subscriptions for the AV8OR Handheld are available at **bendixking.com/av8or** after login:

- GoFly Software Updates
- AV8OR Firmware Updates

The AV8OR Handheld must be connected to the PC with the included USB connector. The PC will automatically detect the AV8OR handheld and display the available updates as shown in the figure below.

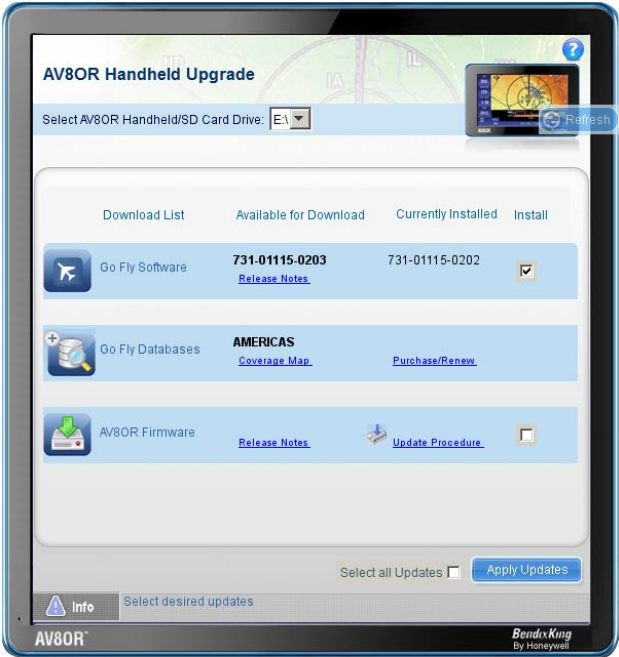


Figure 6-15: AV8OR Handheld Upgrade Screen

Follow the instructions on the PC screen to upgrade the GoFly software or AV8OR firmware.